

**KV-E2511D**  
**RM-689**

# SERVICE MANUAL

*AEP Model*  
Chassis No. SCC-C98B-A



## **AE-1A CHASSIS**

**Note:** The service manual for RM-689 has been issued separately.

### MODELS OF THE SAME SERIES

**KV-E2511D**

**KV-E2911D**

### SPECIFICATIONS

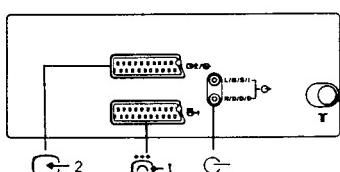
Television system	B/G/H
Color system	PAL, SECAM, NTSC 3.58, NTSC 4.43 (selected automatically)
Channel coverage	See »RECEIVABLE CHANNELS AND CHANNEL DISPLAYS«
Picture tube	Trinitron tube
	Approx. 63.5 cm (25 inches) (Approx. 59 cm picture measured diagonally) 110-degree deflection
Inputs	① 21-pin connector: CENELEC standard including RGB input. ② 21-pin connector: including S video input ③ 4-pin DIN S video input connector Y: 1 Vp - p ± 3 dB 75 ohm C: 0.3 Vp - p ± 3dB 75 ohms Audio input jacks: phono jack
Outputs	21-pin connector: CENELEC standard Headphones jack: stereo minijack External speaker terminals: 2-pin DIN Audio output jacks: phono jack (output dependent upon TV settings)
Sound output	30 W + 30 W (music power)
Power consumption	101 Wh
Dimensions not incl. speakers	Approx. 575 x 493 x 468.3 mm (w/h/d)
Dimensions incl. speakers	Approx. 756.6 x 493 x 468.3 mm
Weight not incl. speakers	Approx. 35.8 kg
Weight incl. speakers	Approx. 40.9 kg
Supplied accessories	RM-689 Remote Commander (1) IEC designation R 6 batteries (2)
	Detachable speakers (1 pair) Woofer (1)

Design and specifications are subject to change without notice.

**TRINITRON® COLOR TV**  
**SONY®**



## 21 pin connector (Pin 1, Pin 2)



Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	—	Red input	0.7V±3dB, 75ohms, positive
	—	○	(S signal) chroma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Y <sub>s</sub> signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
20	○	—	Video input	1V±3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
	—	○	Video Input/Y (S signal)	1V±3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected

● unconnected (open)

\* at 20 Hz–20 kHz

## WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.  
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

## SAFETY-RELATED COMPONENT WARNING!!

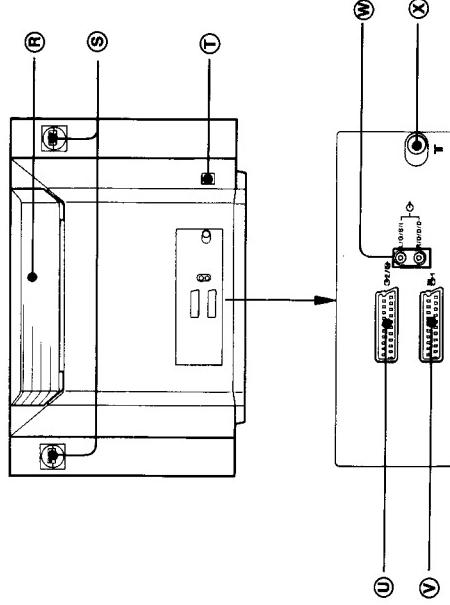
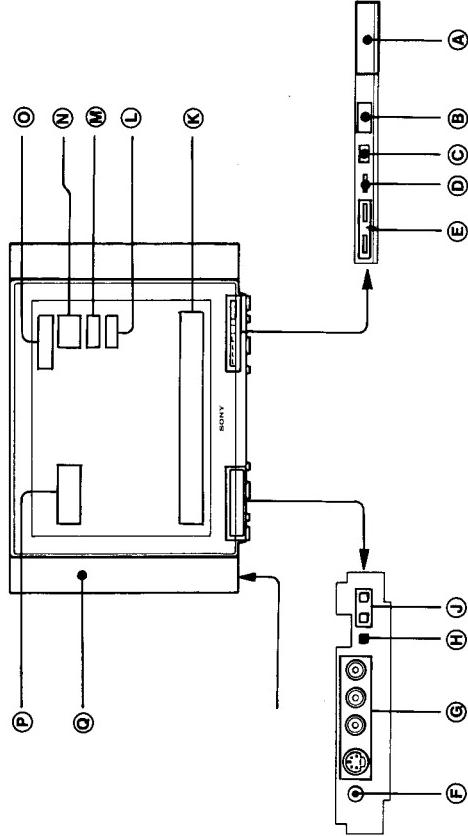
COMPONENTS IDENTIFIED BY SHADING AND MARK ON THE SCHEMATIC DIAGRAMS ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THE SERVICE MANUAL.  
CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THE SERVICE MANUAL PUBLISHED BY SONY.

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## 1-1. FUNCTION OF CONTROLS

## **SECTION 1 GENERAL**



ON THE SET

**A Power Switch**

Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display. (N) for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See »CONTROLS ON THE REMOTE COMMANDER«).

**⑧ Remote control detector**  
(See »CONTROLS ON THE REMOTE COMMANDER«)

© Standby/Response indicator

This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

④  **Noise reduction indicator**  
This indicator lights up when noise reduction has been acti-

**E** Stereo A/B indicators 

During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See «CONTROLS ON THE REMOTE COMMANDER»).

Jacks and control panel

**Second and third panels.**  
The jacks and the control panel are situated behind a cover.  
Please press the arrow marking on the cover to open it.

**® Woofer**

## ⑤ Terminals for connecting the woofer

- ⑦ Terminals for the right and left speakers
- ⑧ Euro-AV-connector 21-pin ♂/♂-

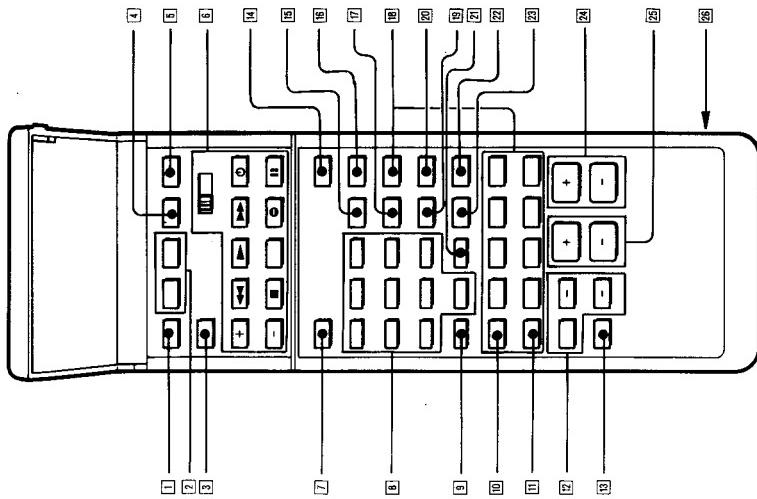
- For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.
-  **Euro-AV-connector 21-pin**   
For connecting a VTR, a video disc player, a computer ecc..

**W Audio-output-jacks** (phono jacks) ↗  
For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case

The volume is adjustable on the TV set.

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- ON THE REMOTE COMMANDER**

On the set there is a Remote Control detector (B), which receives the signals of the Remote Commander.

**1 ↳ Preset-button** Used for selecting the Preset mode. See »TO PRESET CHANNELS«.

**2 ↳ Tuning +/− buttons**

  - Preset mode: Used for tuning in stations in the Automatic Station Search: See »TO PRESET CHANNELS«;
  - TV-mode: Used for fine-tuning a station. See »ADDITIONAL FUNCTIONS«;

**3 C.. button (Clear)** Used for clearing programme positions, so that the position will be skipped when the PROGR +/− buttons [24] are pressed. See »TO PRESET CHANNELS«.

**Note** Use the Standby-button [14] only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch [A].

**4 ◇ Store button:** Used for storing channels. See »TO PRESET CHANNELS«;

**5 ⓧ TV-system-select-button** This button has no function;

**6 Video selector and video operation buttons** Used for operating Sony video equipment. For details see »CONNECTING OTHER EQUIPMENT«;

**7 ☰ Mute button** By pressing this button the sound of the set will be switched off and by pressing it once more the sound will be restored.

**8 Number buttons**
  - Used to select programme positions or to input channel numbers (in the preset mode).
  - If the set is in the standby mode, press one of the number buttons to switch it on.
  - After pressing the Output select button [7] the buttons 1-3 can be used to select the different Output connectors.

**9 ↻ Button** In case of two digit numbers, press first this button and then the two respective number buttons [8].

**10 ☰ Button for On-screen display** By pressing this button information about the station tuned in will be indicated on the screen. The indications will disappear after some seconds with the exception of the programme number, which will stay on the screen until the button is pressed once again.

**11 Time button (⌚)** In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

**12 +/− Buttons for picture and sound adjustments**

**a) TV-mode:** The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: ☰ contrast, ☰ colour, ☰ brightness, ☰ hue (only for NTSC colour system), ☰ sharpness, ☰ bass, ☰ treble or ↵ balance. You can adjust the settings by pressing the + or − button.

**b) Preset-mode:** Use these buttons to name a station. See »TO PRESET CHANNELS«;

**13 ...••• Reset-button** By pressing this button the picture and sound adjustments are reset to the factory-set levels.

**14 ⓧ Standby-button** Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button [5] or one of the number buttons [8]. To return to the teletext mode, press the ☰ [6] button. There will be a slight delay before the picture is restored.

**15 ☱ Input-Select-Button** Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:  
[5] → [6] (RGB) → [7] → [8] → [9] → [10]

**16 ☱ TV-Button** When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

**17 ☱ Output-Select-Button** Press this button to select the audio- or video signals to be output at the [3]/[E] connector. First press this button, then select the desired signal source using the number buttons [8] (either 1,2 or 3) or the TV-button [6] (if the signals which are on the screen are to be output).

**18 ☱ Teletext operation buttons** These buttons are used for teletext operation. See »VIEWING TELETEXT«.

**19 ☱ Loudness button** By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be or ↵.

**20 ☱ A/B button** To select the channel of bilingual programmes. Usually the synchronized version is broadcast on channel A and the original sound is broadcast on channel B. In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists.

**21 ☱ C(Channel select) button** Use this button for direct channel tuning in the TV-mode. See »ADDITIONAL FUNCTIONS«.

**22 ☱ Noise reduction button** Press to reduce the noise on the picture. The Noise reduction indicator [6] lights up. Press the button again to restore the normal picture.

**23 ☱ Space sound button** Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be ☰ or ☰.

**24 ☱ PROGR +/− buttons** In TV-mode: Use these buttons to scan the available programmes up- or downwards.  
Preset mode: Use these buttons to scan the available channels up or downwards.

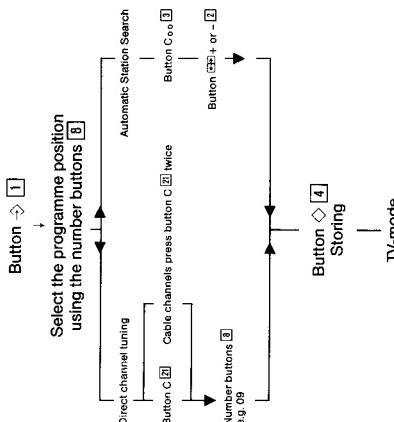
**25 ☱ +/- buttons** See »ADDITIONAL FUNCTIONS«.

**26 ☱ Battery compartment (on the rear)**

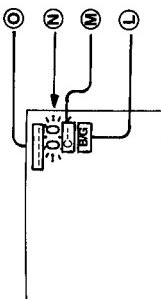
## 1-2. TO PRESET CHANNELS

Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels.

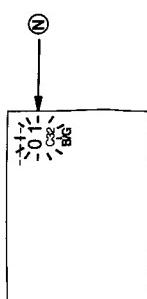
- 3. Press button C [2].** The indication »C« and the channel number start blinking in the display [1]. Select the channel number with two digits (e.g. 04) using the number buttons [3].



- 1. Direct Channel Tuning**
  1. Press the Preset button  You are now in the preset mode of the set. The programme number in the on-screen display  starts blinking.



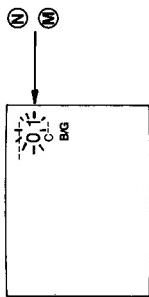
! With the buttons PROGR +/ - [24] or the number buttons [0-9] you can select the programme position. In case of two-digit numbers, press first the button **-** [3] and then the two number buttons.



#### **ADDITIONAL EINCTION**

Using bullet 3 you have the possibility to insert programme positions (e.g. without a store).

use skip programme positions (e.g. without a stored station) when pressing the buttons PROGR +/- [24] on the Remote Commander.



1. Press button  You are now in the preset mode of the set.
  2. Use the buttons PROGR +/-  to select the programme

1

→ Select the programme position  
using the number buttons

卷之三

— 6 —

## 1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander.  
The buttons for teletext operation are indicated in green.

### Operation

- 1 Select the TV channel for the desired teletext service.  
When the signal is weak, teletext errors often occur.
  - 2 Press  $\text{[} \text{TEXT/MIX}]$  to display the teletext service.
  - 3 Key in the three digits of the desired page using the number buttons. If an error is made complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.
- The requested teletext page is displayed.

To return to the TV mode, press TV on the Remote Commander.

### To request the index page

Press  $\text{[} \text{INDEX}]$ .  
If the necessary signal is not being broadcast, page 100 is displayed.

### To access the next or preceding page

Press  $\text{[} \text{PAGE +}]$  or  $\text{[} \text{PAGE -}]$ .

### To superimpose the teletext display on the picture

Press  $\text{[} \text{P/} \text{]}$  twice from the TV mode.  
Press  $\text{[} \text{P/} \text{]}$  again to return to the TEXT display.

### To suppress the teletext display so that the TV picture is displayed

Press  $\text{[} \text{TEXT CL}]$ .  
This button can be operated from both the TEXT and MIX displays.

### To prevent a teletext page from being updated/changed

Press  $\text{[} \text{HOLD}]$ . The HOLD symbol appears on the screen.  
To resume normal teletext reception, press  $\text{[} \text{P/} \text{]}$  (TEXT/MIX).

### To reveal concealed information such as answers to a quiz

Press  $\text{[} \text{REVEAL}]$ .  
Press again to conceal the answers.

### To enlarge the teletext display

Press  $\text{[} \text{}$  once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

### To reveal concealed information such as answers to a quiz

Press  $\text{[} \text{REVEAL}]$ .  
Press again to conceal the answers.

### To view the input picture

Press the  $\text{[} \text{IS}]$  button repeatedly until the desired input signal indication appears on the screen.

### Operation

- 1 Switch the video selector to the desired position.
- VIDEO 1: to operate Sony Betamax VTR and SLV 202 VHS.
- VIDEO 2: to operate Sony 8 mm VTR.
- VIDEO 3: to operate Sony VHS VTR.
- MDP: to operate Sony video disc player including a multi disc player.

- 1 Press  $\text{[} \text{IS}]$  to start operation.
- 2 Press the operation button(s) to start operation.

- 1 Press  $\text{[} \text{PROGR +/-}]$  to select the desired programme on the VTR.
- 2 : to rewind the tape or to rapidly go back to the desired position on the disc.

- 1 : to start playback

- 1 : to advance the tape or the disc rapidly to the desired position

- 1 : to stop the tape or the disc, or to release the pause mode

- 1 : to start recording on the VTR

- 1 : Be sure to press this button and the one on the left simultaneously

- 1 : to switch the video equipment on and off

- 1 : to stop the tape or the disc temporarily (pause)

### To select the signal to be output from the $\text{[} \text{2/} \text{]} \text{-} \text{[} \text{3/} \text{]}$ connector

Press the  $\text{[} \text{2/} \text{]} \text{-} \text{[} \text{3/} \text{]}$  button  $\text{[} \text{1}]$ , then  $\text{[} \text{2}]$ ,  $\text{[} \text{3}]$  or the TV-button  $\text{[} \text{TV}]$  while  $\text{[} \text{G-1}]$  is displayed, so that one of the following indications is displayed:

- 1  $\text{[} \text{G-1}]$ : The audio and video signal input through the  $\text{[} \text{2/} \text{]}$  connector is output from the  $\text{[} \text{2/} \text{]}$  connector.

- 2  $\text{[} \text{G-2}]$ : The audio and video signal input through the  $\text{[} \text{3/} \text{]}$  connector is output from the  $\text{[} \text{3/} \text{]}$  connector.

- 3  $\text{[} \text{G-2}]$ : The audio and video signal input through the  $\text{[} \text{2/} \text{]}$  connector is output from the  $\text{[} \text{2/} \text{]}$  connector.

- 1  $\text{[} \text{G-2}]$ : The audio and video signal input through the  $\text{[} \text{2/} \text{]}$  connector is output from the  $\text{[} \text{2/} \text{]}$  connector.
- 2 : to switch the video equipment on and off
- 3 : to stop the tape or the disc temporarily (pause)

The indication will disappear after a few seconds.

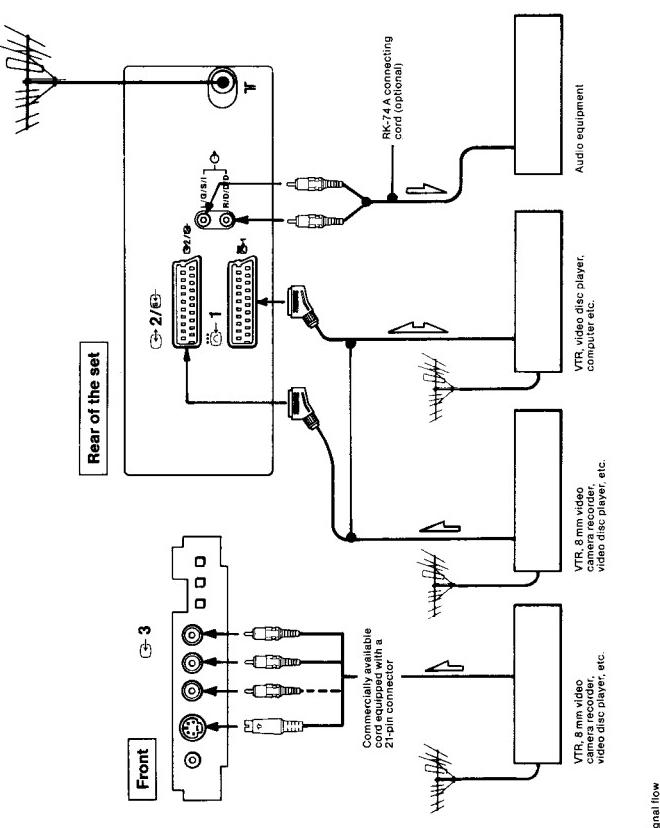
### Note

The TV-signal is always output at the EURO-AV connector  $\text{[} \text{G-1}]$ .

- 1 To watch the TV programme until the requested time, press  $\text{[} \text{TEXT CL}]$ . At the requested time, the page number will be displayed at the bottom of the screen.
- 2 To view this page, press  $\text{[} \text{P/} \text{]}$ .
- 3 To cancel the request, first ensure that the teletext page is displayed, then press  $\text{[} \text{TP OFF}]$ .

## 1.4. CONNECTING OTHER EQUIPMENT

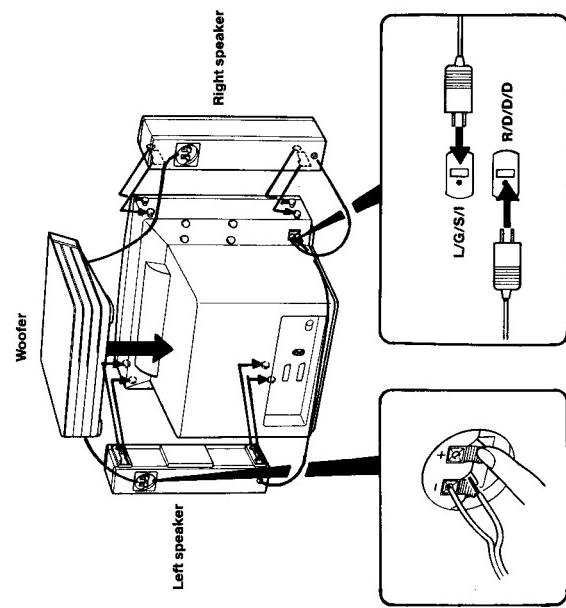
## 1.5. HOW TO ATTACH THE SPEAKERS



KV-E 2511 D	
1	Place the woofer on the rear cover of the set.
2	Attach the right and left speakers on the sides of the set.
3	Connect the speaker cords of the woofer to the speaker terminals on the right and left speakers: connect the black terminal to the - (black) terminal and the black and white cord to the + (red) terminal.
4	Connect the left speaker cord to the L/G/S/I terminal and the right speaker cord to the R/D/D terminal on the rear of the TV set.

**Note**

Make sure that the set is turned off when you install the speakers.



**S video input (YC Input)** Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals. Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevent them from interfering with one another, thereby improving picture quality (especially in luminance). This set is equipped with two S video input jacks through which these separated signals can be input directly. Connect one of the two S video output jacks on the VTR to the S video input on this set.

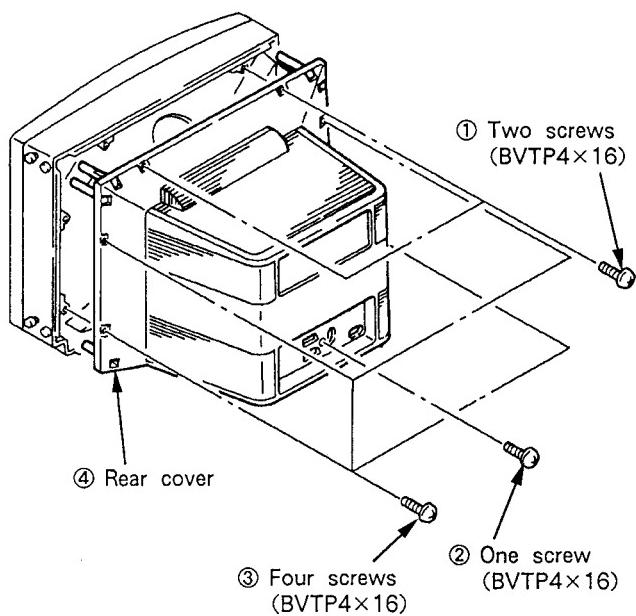
- \* Connect the S video output of the VTR, etc. here.
- \*\* To connect S video connectors (4-pin DIN), use an optional YC-15/YC-15 EV connecting cable.

**Notes**

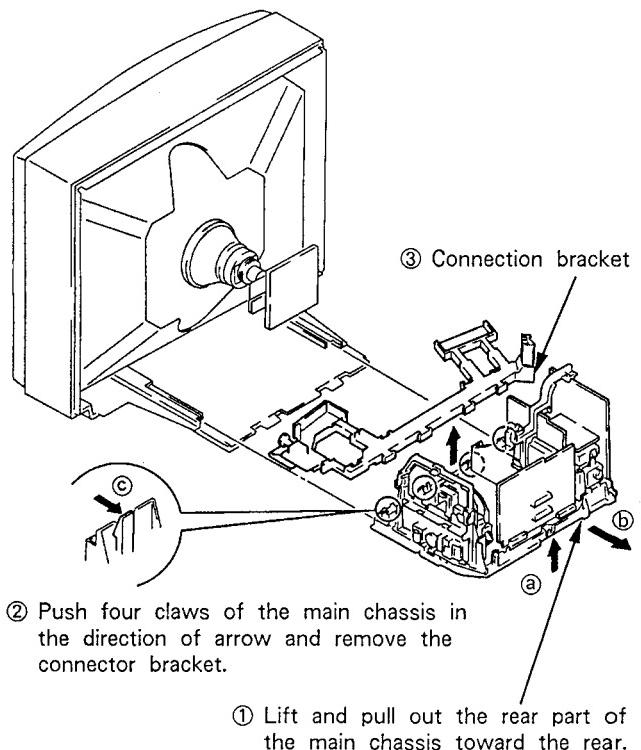
- It is also possible to connect a VTR using the "n" terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the "1" input connector.

## SECTION 2 DISASSEMBLY

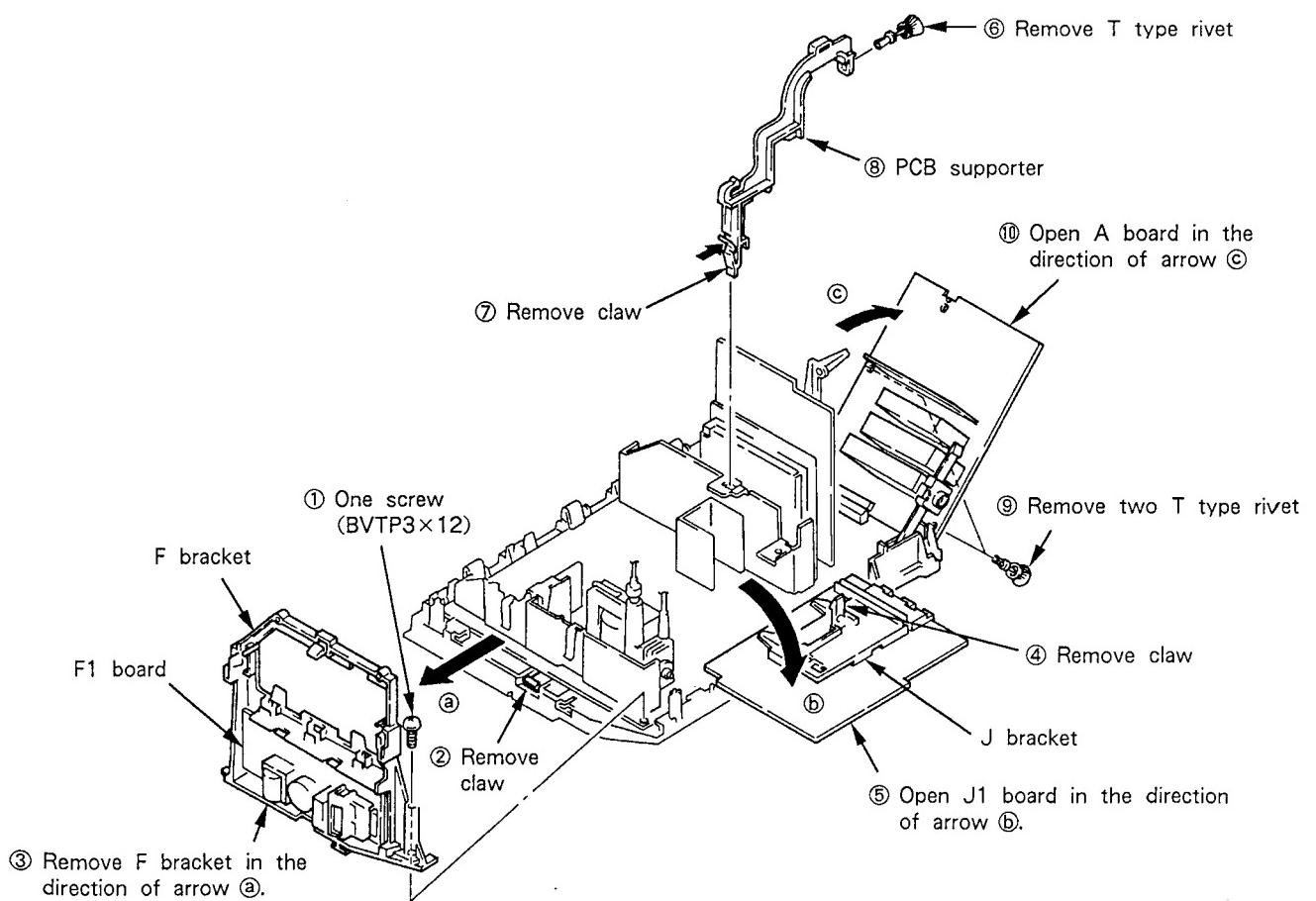
### 2-1. REAR COVER REMOVAL



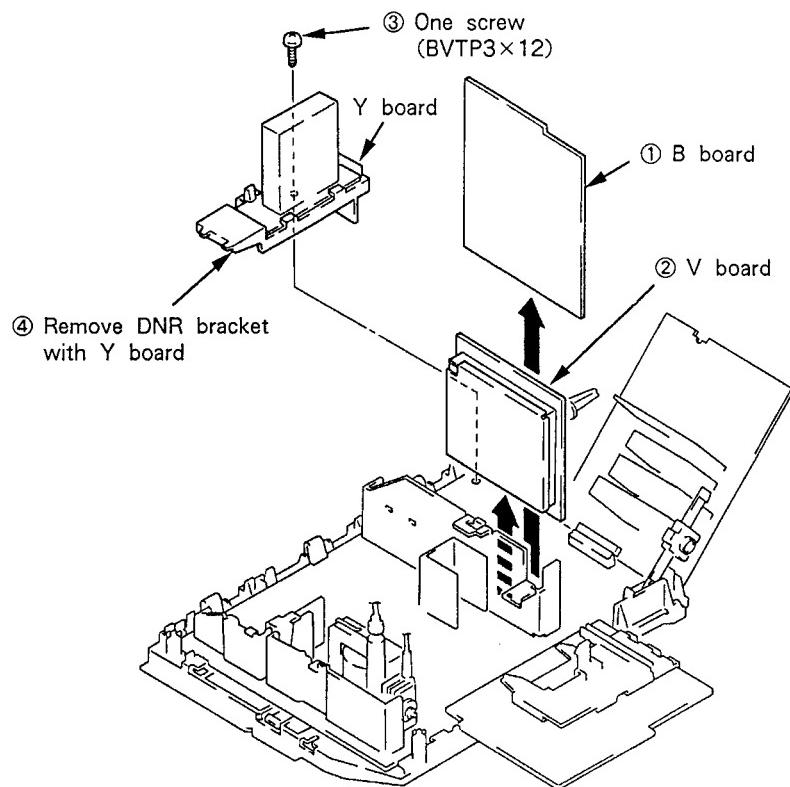
### 2-2. CHASSIS ASSY REMOVAL



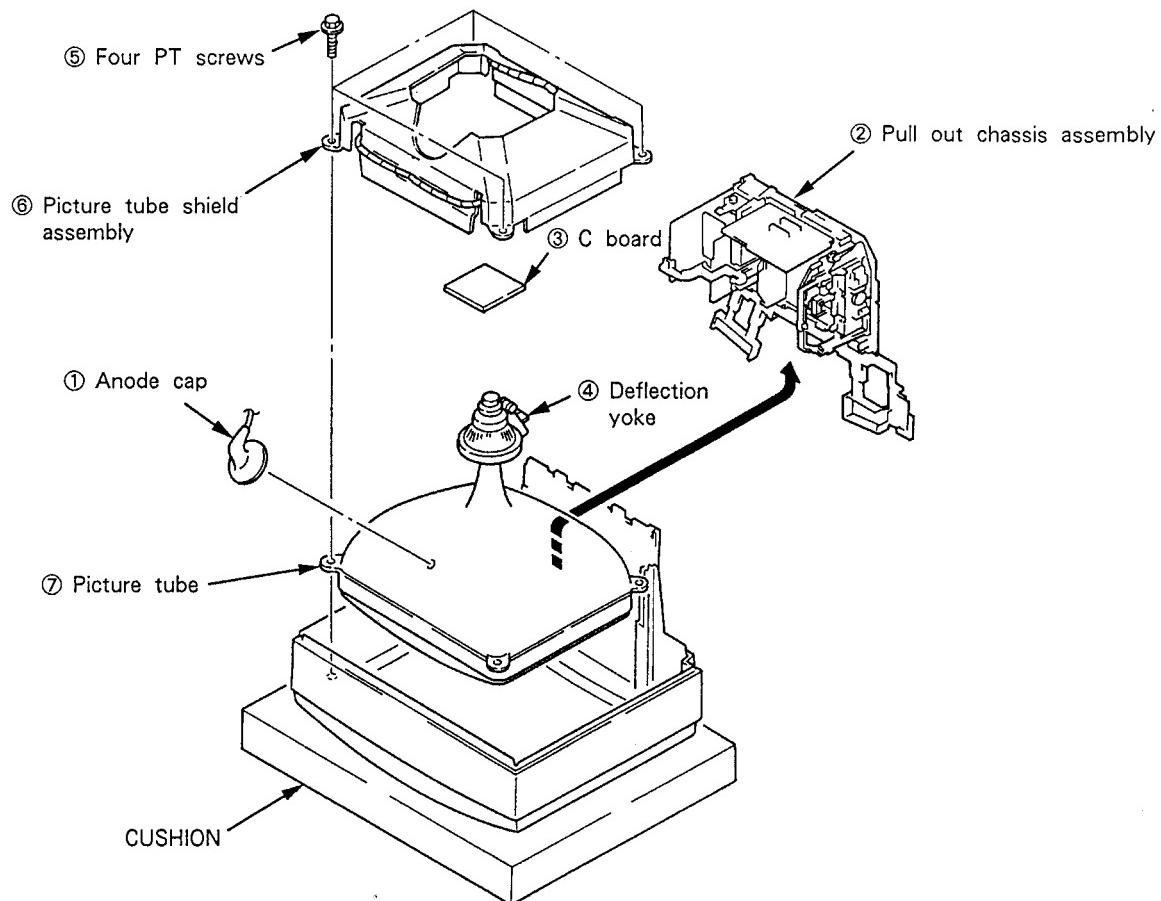
### 2-3. A, J1 BOARDS OPENING AND F1 BOARD REMOVAL



**2-4. V, B AND Y BOARDS REMOVAL**

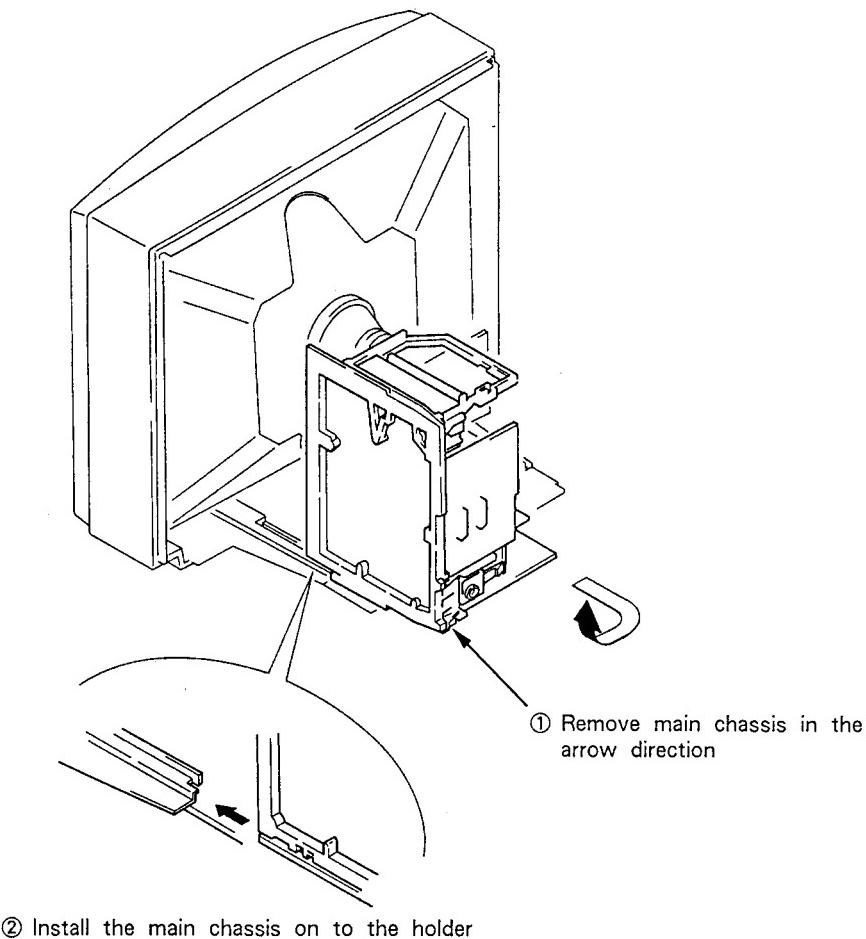


**2-5. PICTURE TUBE REMOVAL**

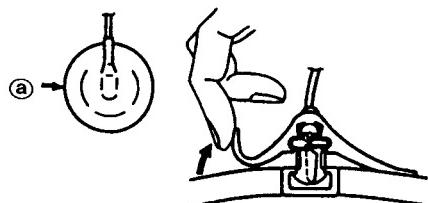


**2-6. SERVICE POSITION**

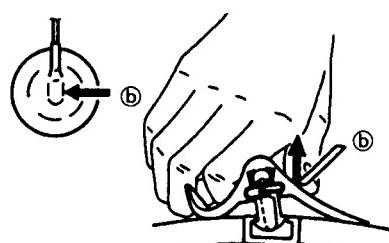
\* Remove the connector bracket and then perform the following servicing (refer to 2-2. CHASSIS ASSEMBLY REMOVAL).



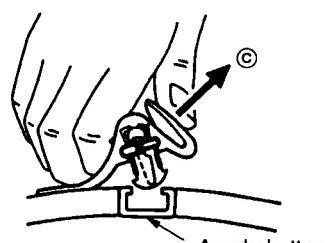
- **REMOVAL OF ANODE-CAP**
- **REMOVING PROCEDURES**



① Turn up one side of the rubber cap in the direction indicated by the arrow Ⓐ.



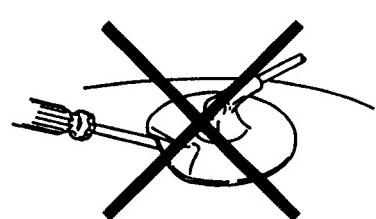
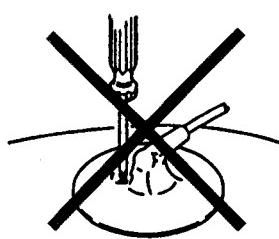
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow Ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow Ⓒ.

- **HOW TO HANDLE AN ANODE-CAP**

- ① Don't hurt the surface of anode-caps with sharp shaped material !
- ② Don't press the rubber hardly not to hurt inside of anode-caps !  
A metal fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly !  
The shatter-hook terminal will stick out or hurt the rubber.



## SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new receiver tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.

Unless there is specific instruction to the contrary, set the controls and switches this way :

- |                    |                               |
|--------------------|-------------------------------|
| ● Contrast.....    | 80%                           |
|                    | (or remote control<br>normal) |
| ❖ Brightness ..... | 50%                           |

Carry out the following adjustments in this order :

1. Beam landing
2. Convergence
3. Focus
4. White balance

**Note :** Testing equipment required

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

### Preparations

- In order to reduce the influence of geomagnetism on the set's PICTURE TUBE face it east or west.
- Switch on the set's power and degauss with the degausser.

### 3-1. BEAM LANDING

1. Input the raster signal with the pattern generator.  
Contrast ..... normale  
Brightness .....
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Figures 3-1 through 3-3)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 3-4)

purity control

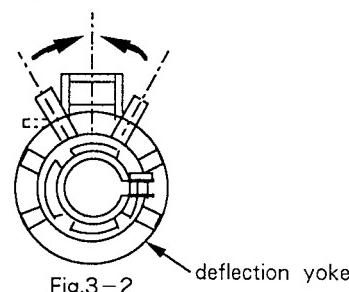


Fig.3-2

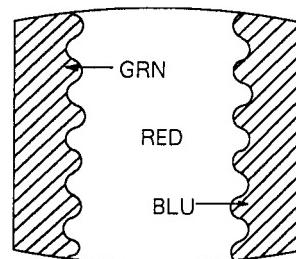


Fig.3-3

Disk magnets or  
rotatable disk  
magnets correct  
these areas (a-d).

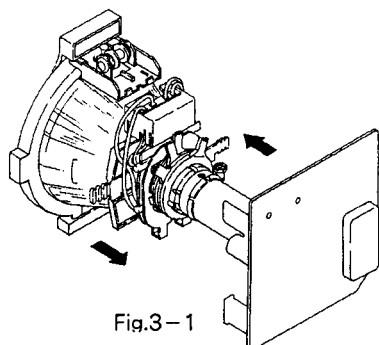
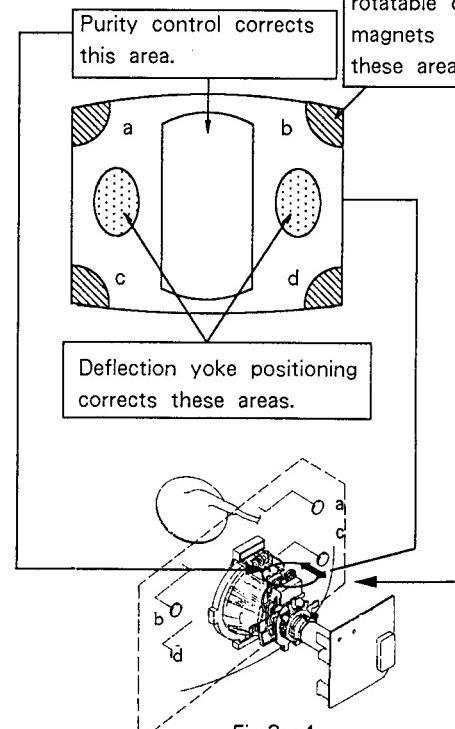


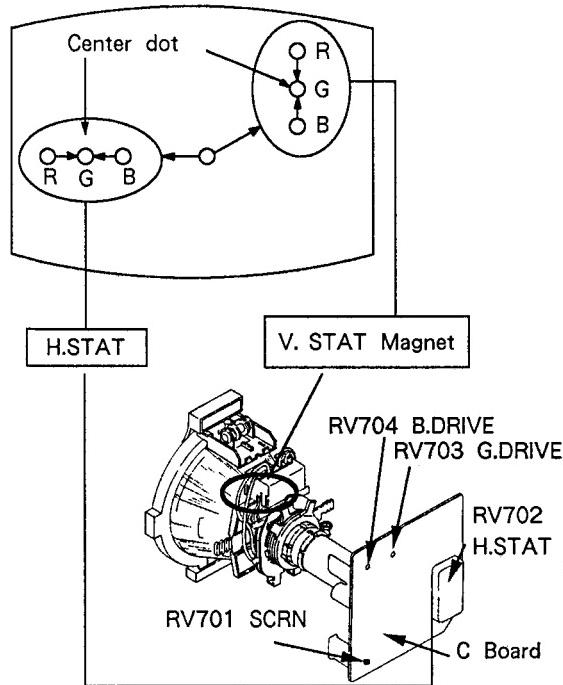
Fig.3-1

### 3-2. CONVERGENCE

#### Preparations :

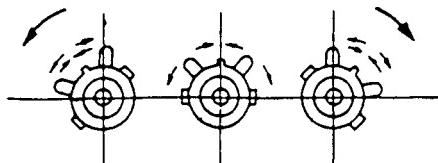
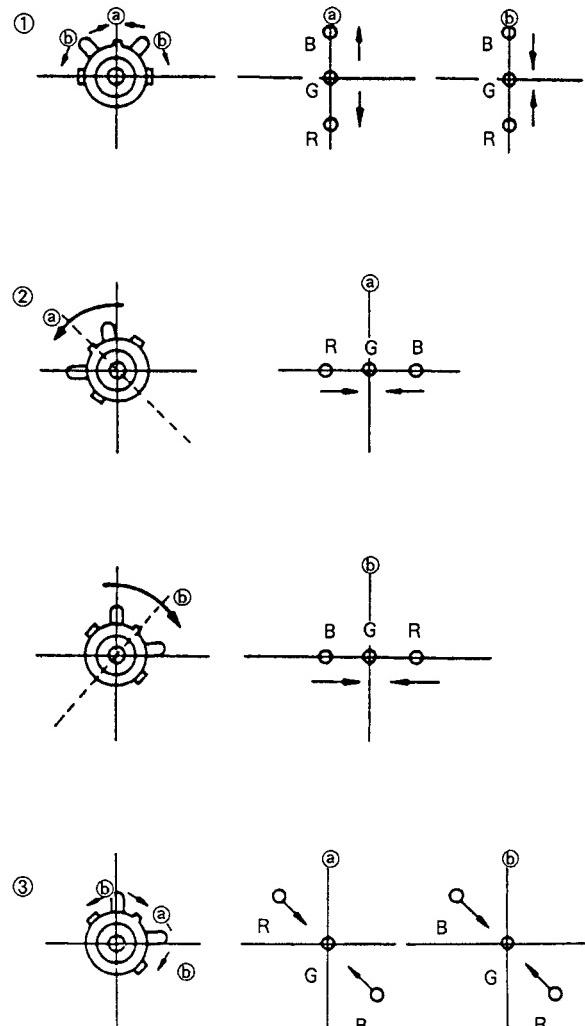
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

#### (1) Horizontal and vertical static convergence

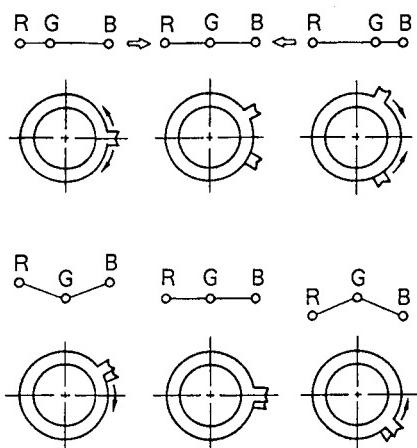


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other's settings.)
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

4. If the V.STAT magnet is moved in the direction of the ④ and ⑤ arrows, the red, green, and blue points move as shown below.

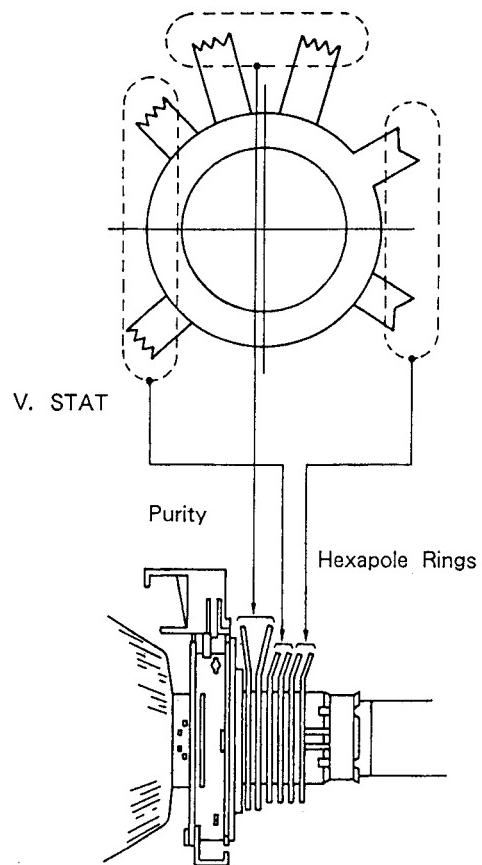


● Operation of Hexapole Ringed Magnet



The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.

Use the H. STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).



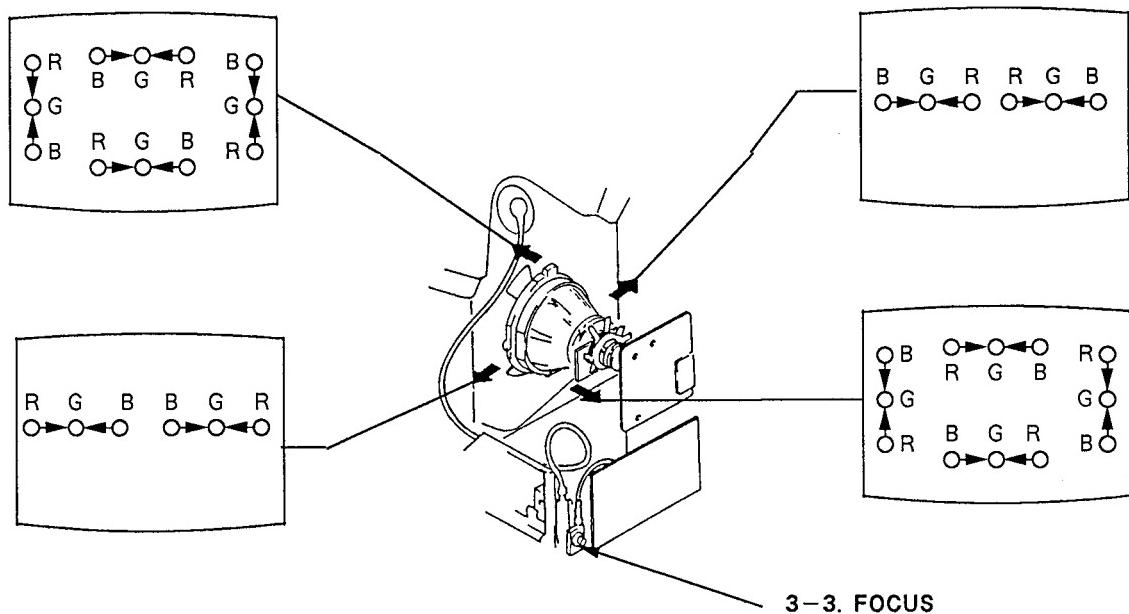
(2) Dynamic convergence adjustment

Preparations

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

  1. Slightly loosen the deflection yoke screws.
  2. Remove the deflection yoke spacer.

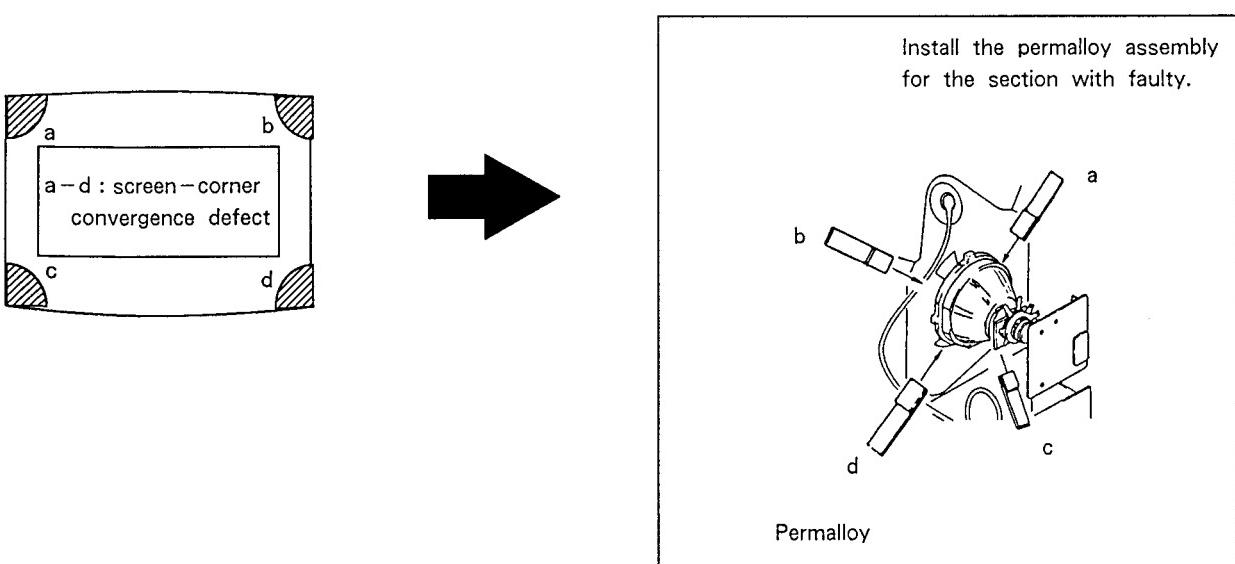
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.



**3-3. FOCUS**

Adjust the focus to optimize the screen.

(3) Screen corner convergence



### 3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170 VDC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

[White balance adjustment]

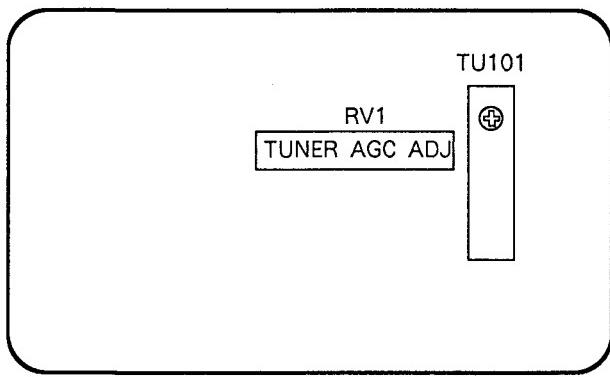
1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use RV704 (B Drive) and RV703 (G Drive) to adjust the white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

## SECTION 4

### CIRCUIT ADJUSTMENTS

#### 4-1 A BOARD ADJUSTMENTS

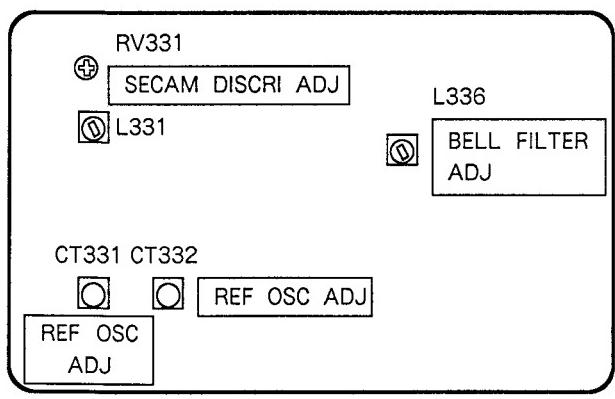


(COMPONENT SIDE)

##### TUNER AGC ADJUSTMENT (VIF101 RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

#### 4-2. B BOARD ADJUSTMENTS



(COMPONENT SIDE)

##### REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8 MHz)

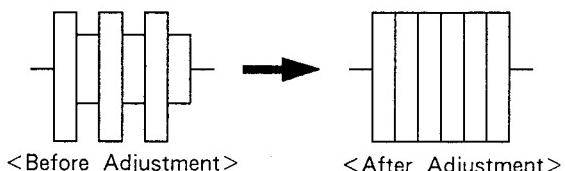
1. Input a PAL color bar signal.
2. Ground Pin ⑩ of IC331.
3. Adjust CT332 to obtain synchronization.

##### REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16 MHz)

1. Input an NTSC color bar signal.
2. Ground Pin ⑩ of IC331.
3. Adjust CT331 to obtain synchronization.
4. Remove the justper grounding Pin ⑩ of IC331.

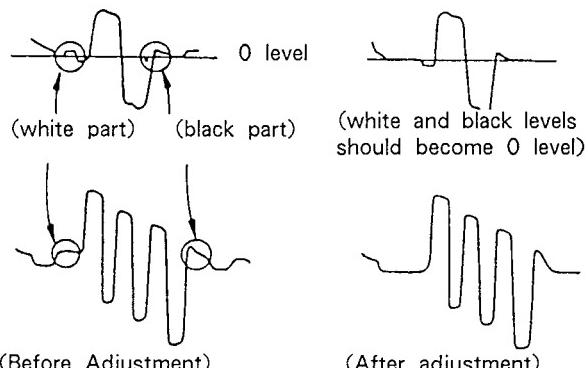
##### BELL FILTER ADJUSTMRNT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.

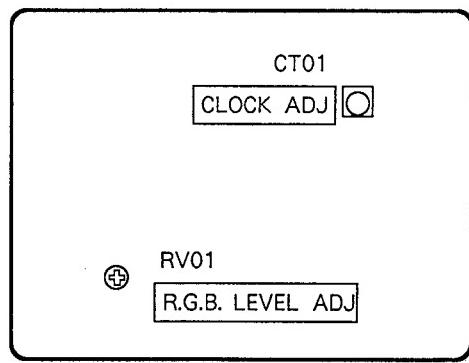


##### DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to Pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the wave form at Pin ① come to the 0 level.
4. Connect the oscilloscope to Pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the wave form at Pin ③ come to the 0 level.



#### 4-3. V BOARD ADJUSTMENTS



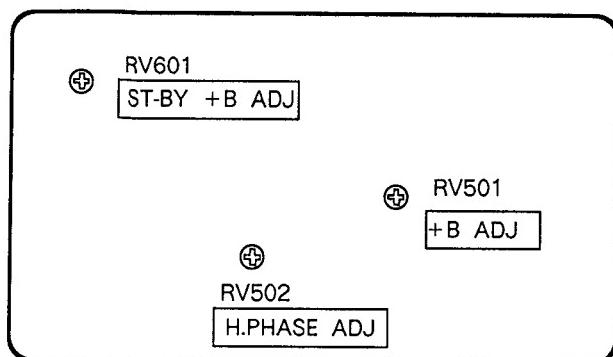
(COMPONENT SIDE)

1. Remove the V-1 connector.
2. Put the system into Text mode.
3. Adjust CT01 so that the picture does not move.

##### RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that RGB output is 0.75V

#### 4-4. D BOARD ADJUSTMENTS



##### +B ADJUSTMENT (RV501)

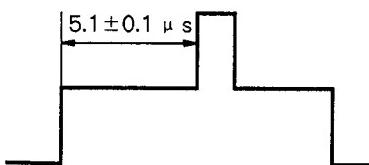
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain  $135 \pm 3.0V$ .

##### ST-BY +B ADJUSTMENT (RV601)

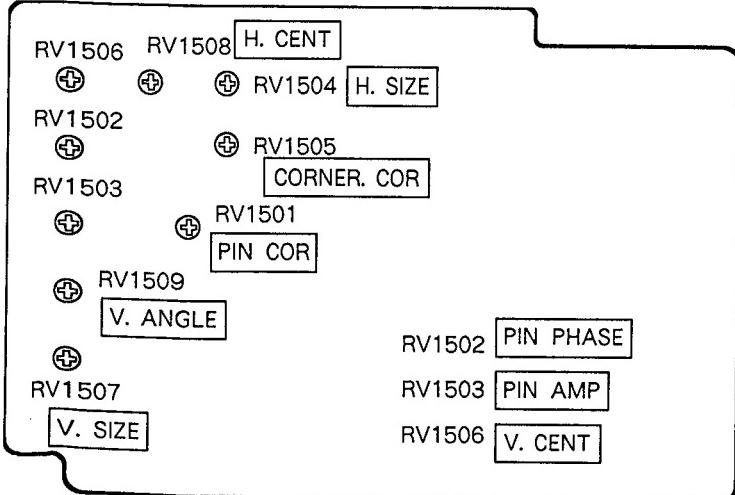
1. Put the system into  $\odot$  standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain  $135 \pm 3.0V$ .
4. Take the system out of  $\odot$  standby mode (remote commander).

##### H.PHASE ADJUSTMENT (RV502)

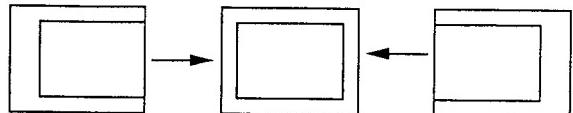
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H. CENT) to its mechanical center.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC501.
5. Rotate RV502 to adjust to  $5.1 \pm 0.1 \mu s$ .



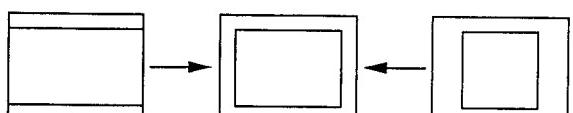
#### 4-5. J1 BOARD ADJUSTMENTS



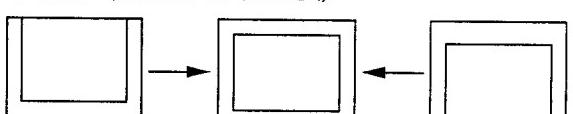
RV1508  
H. CENT (HORIZONTAL CENTER)



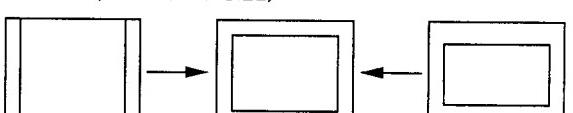
RV1504  
H. SIZE (HORIZONTAL SIZE)



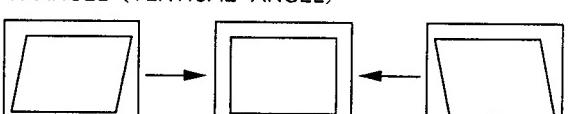
RV1506  
V. CENT (VERTICAL CENTER)



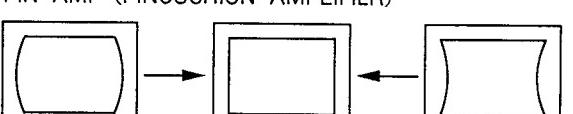
RV1507  
V. SIZE (VERTICAL SIZE)



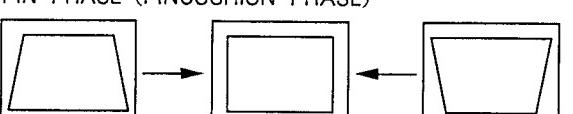
RV1509  
V. ANGLE (VERTICAL ANGLE)



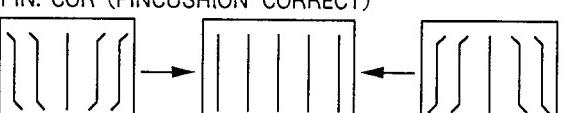
RV1503  
PIN AMP (PINCUSHION AMPLIFIER)



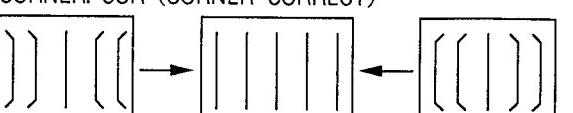
RV1502  
PIN PHASE (PINCUSHION PHASE)



RV1501  
PIN. COR (PINCUSHION CORRECT)



RV1505  
CORNER. COR (CORNER CORRECT)



## SECTION 5 DIAGRAMS

### 5-1. BLOCK DIAGRAM

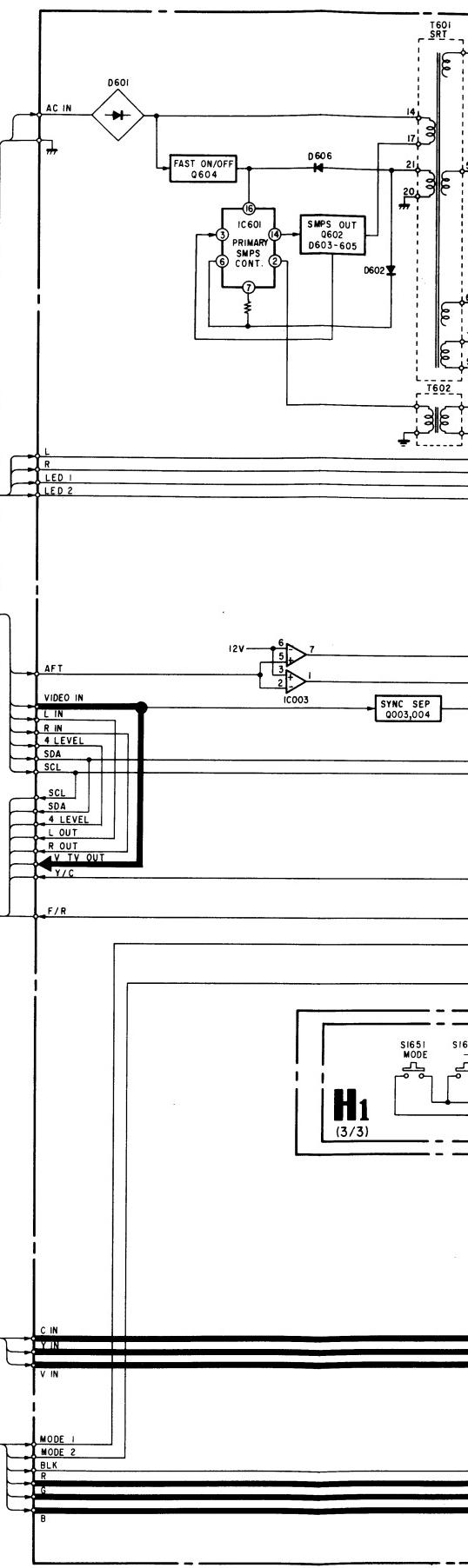
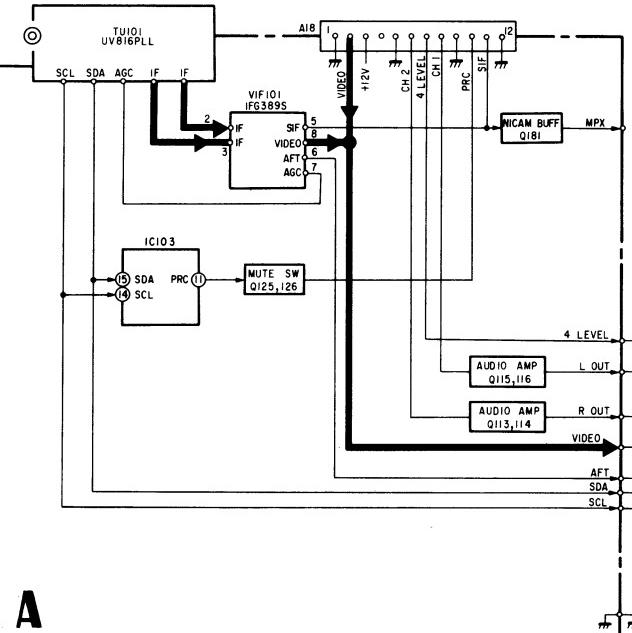
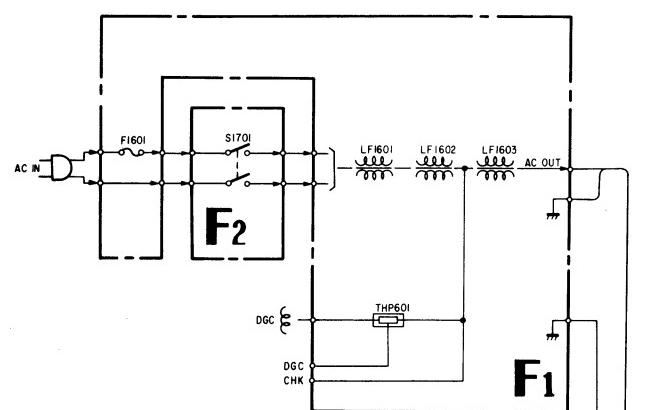
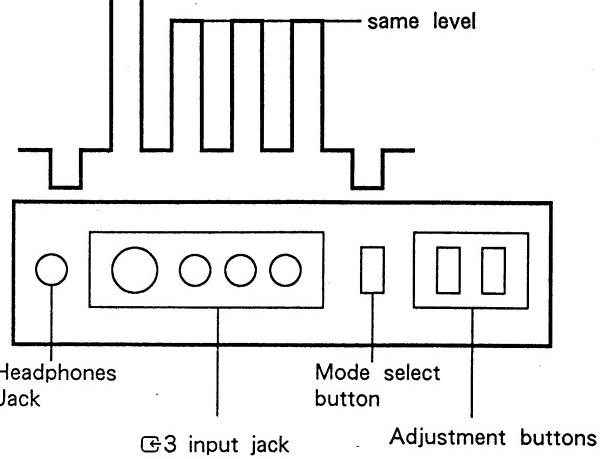
#### SUB BRIGHTNESS ADJUSTMENT

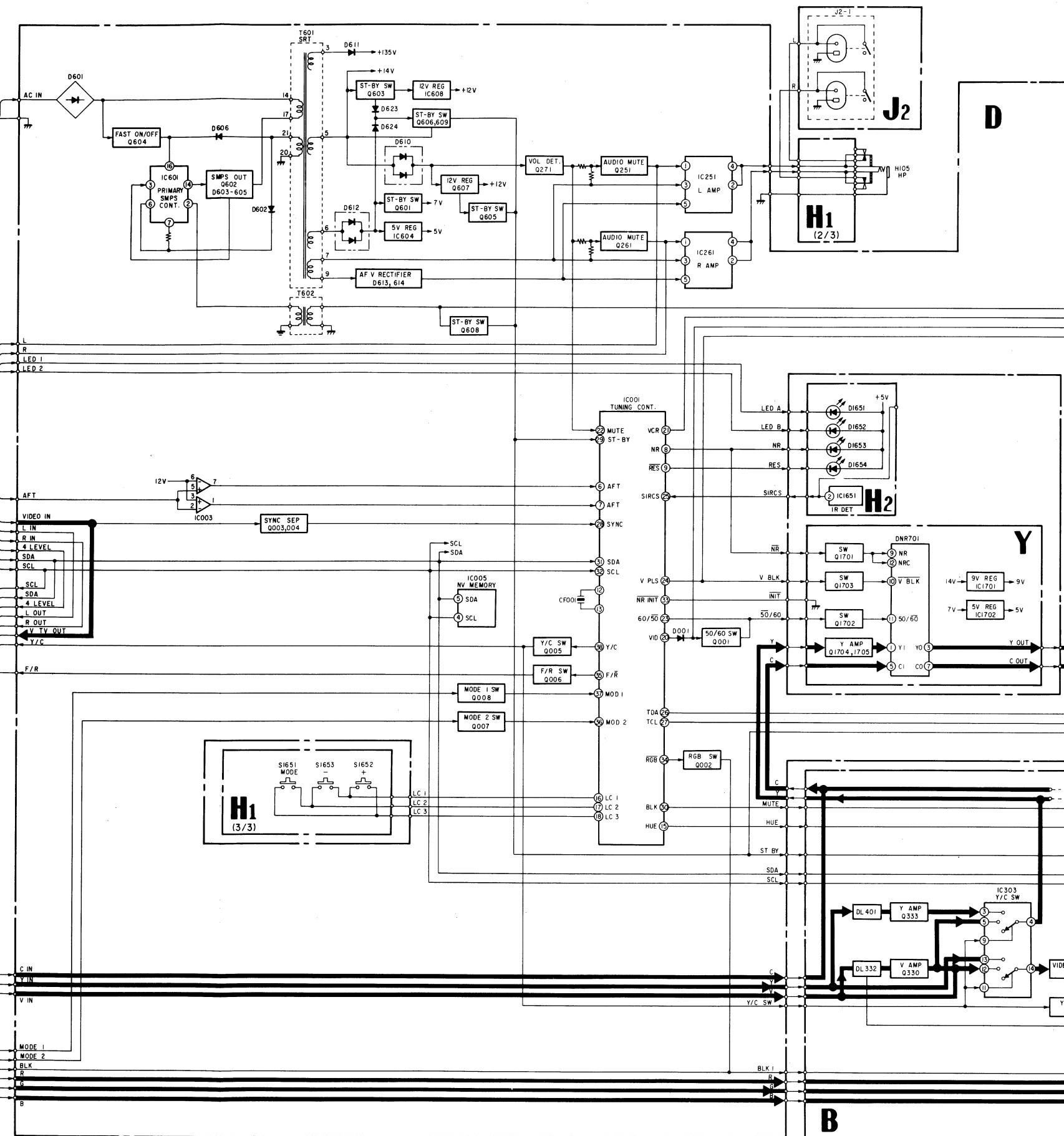
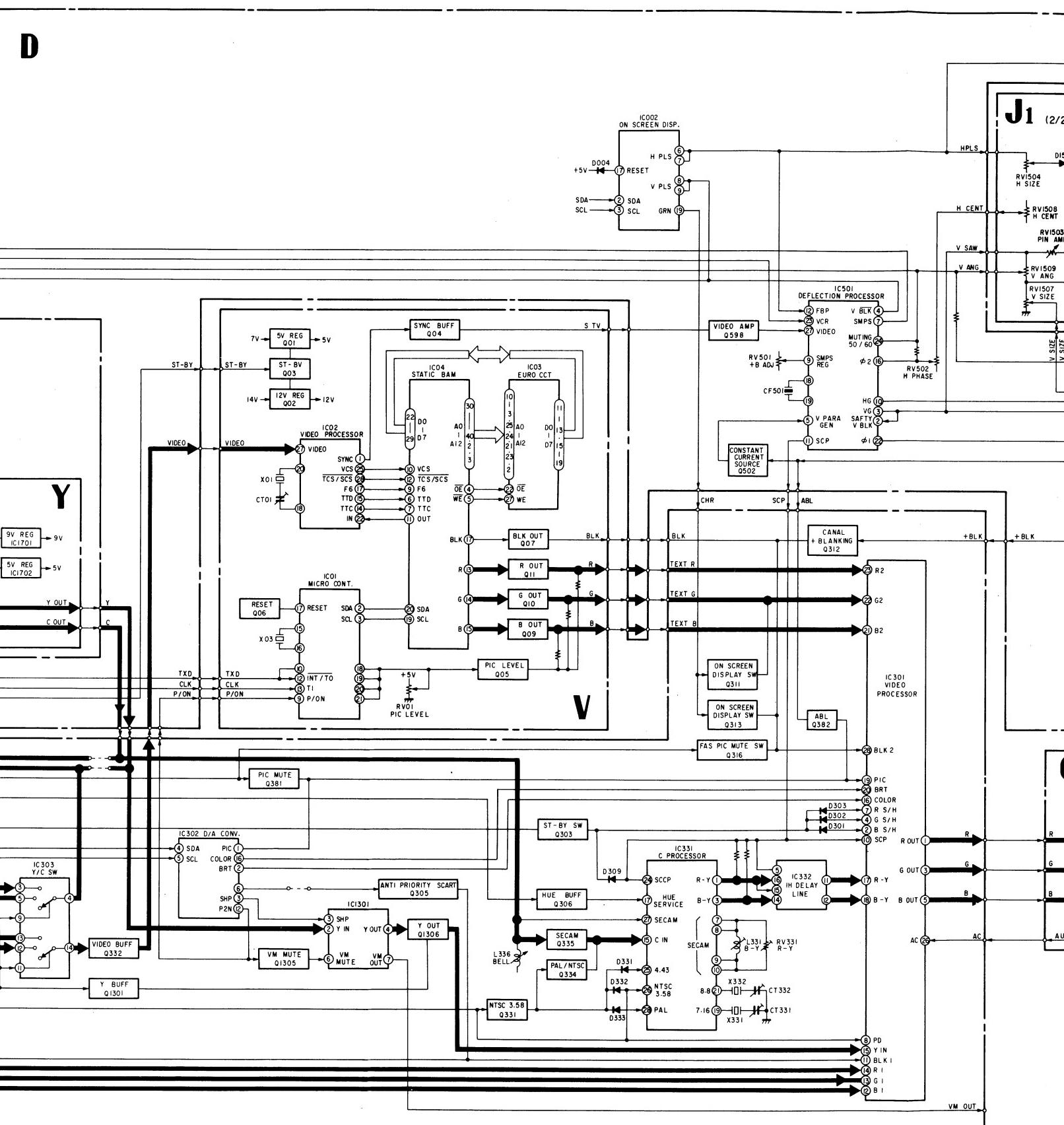
- Set the system to receive a test color pattern.
  - Press  $\rightarrow\leftarrow$  on the remote commander to put the system into normal mode.
  - Switch off the power.
  - While depressing the adjusting buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
  - Minimize the  $\bullet$  contrast setting.
  - Adjust the  $\otimes$  brightness control so that the gray scale 0 IRE section is cut off completely and the 20 IRE section is barely glowing.
  - Depress the  $\diamond$  (store) button of the remote commander. (SUB mode is released)
- If there is no test color pattern

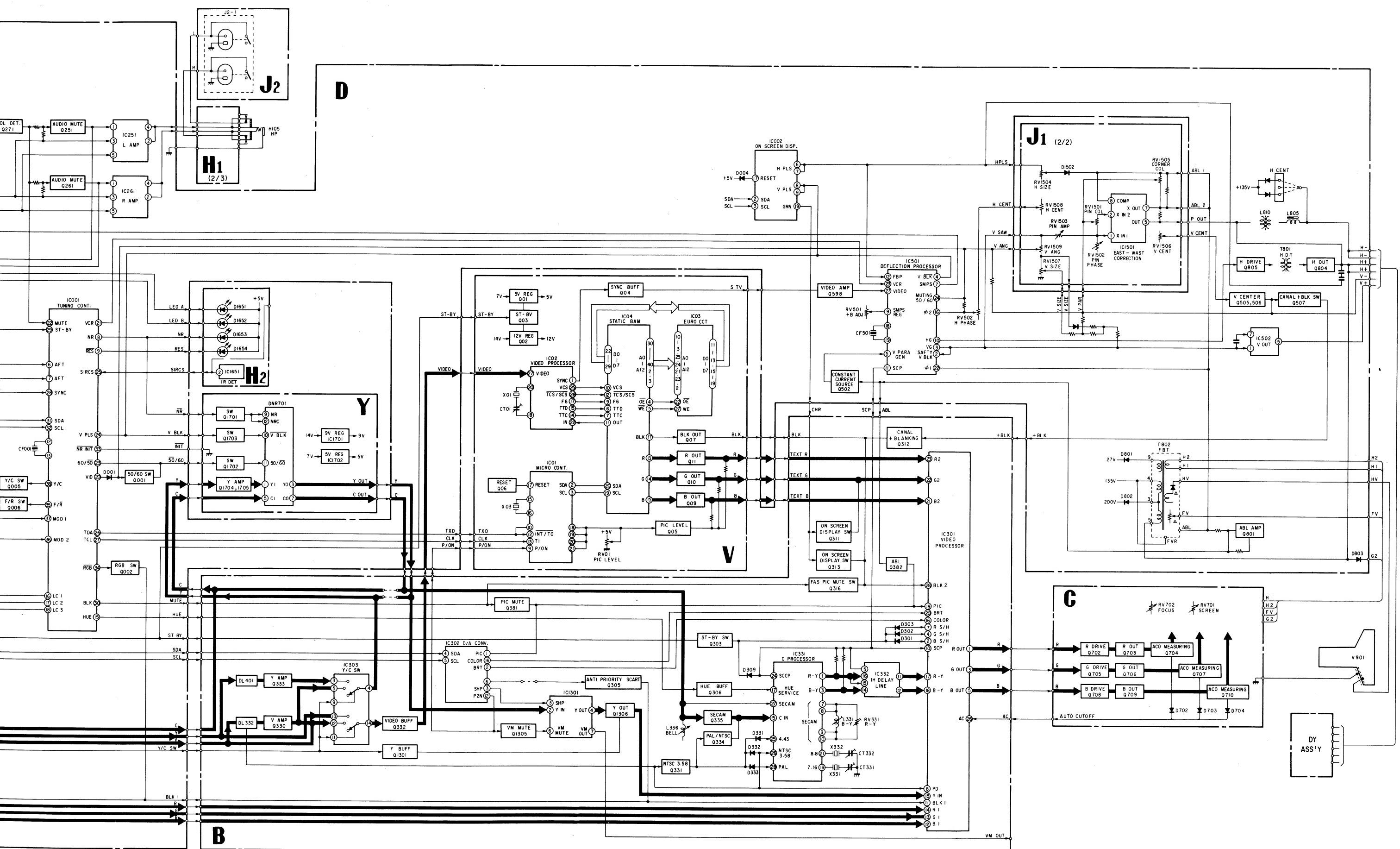
- Set the system to receive a color pattern.
- Press on the remote commander to put system into normal mode.
- Set the  $\bullet$  color to its normal state.
- are the same as above.
- Since 20 IRE is nearly blue, adjust the  $\otimes$  brightness control so that the blue barely glows.
- is the same as above.
- Press  $\rightarrow\leftarrow$  on the remote commander to put the system into normal mode.

#### SUB COLOR ADJUSTMENT

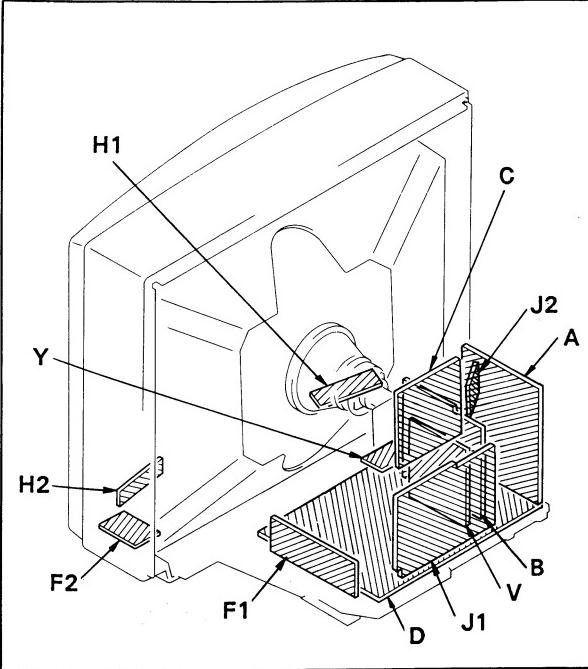
- Set the system to receive color bars.
- Press  $\rightarrow\leftarrow$  on the remote commander to put the system into normal mode.
- Cut off the power.
- While depressing the adjusting buttons + and - simultaneously, turn on the power. (SUB mode is obtained)
- Adjust the color control so that the B out wave form (Pin ② of C board connector CNC72) is as shown in the figure below.
- Depress the  $\diamond$  (store) button of the remote commander. (SUB mode is released)



**D****B**



## 5-2. CIRCUIT BOARDS LOCATION



Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

## Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
- pF :  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm

Rating electrical power: 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms.  $\text{k}\Omega = 1000\Omega$ ,  $\text{M}\Omega = 1000\text{k}\Omega$
- : nonflammable resistor.
- : fusible resistor.
- $\Delta$  : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerances.
- $\text{---}$  : B + line.
- : signal path.

## Reference information

RESISTOR	RN	METAL FILM
	RC	SOLID
	FPRD	NONFLAMMABLE CARBON
	FUSE	NONFLAMMABLE FUSIBLE
	RS	NONFLAMMABLE METAL OXIDE
	RB	NONFLAMMABLE CEMENT
	RW	NONFLAMMABLE WIREWOUND
	*	ADJUSTMENT RESISTOR
COIL	LF-8L	MICRO INDUCTOR
CAPACITOR	TA	TANTALUM
	PS	STYROL
	PP	POLYPROPYLENE
	PT	MYLAR
	MPS	METALIZED POLYESTER
	MPP	METALIZED POLYPROPYLENE
	ALB	BIPOLAR
	ALT	HIGH TEMPERATURE
	ALR	HIGH RIPPLE

## 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS -Conductor Side-

F1

[LINE FILTER, DGC]

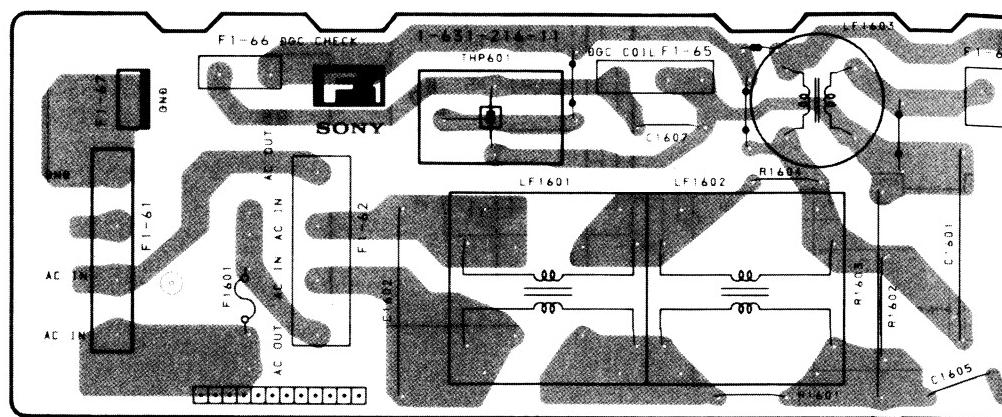
F2

[POWER SWITCH]

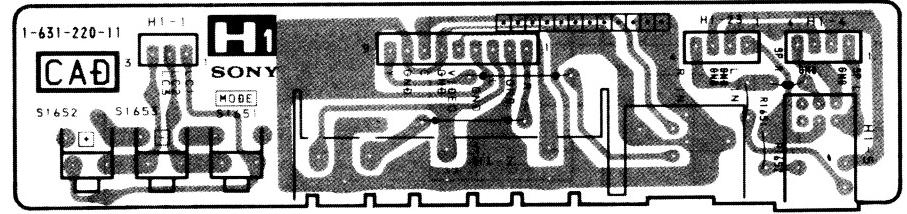
H1

[CONTROL SW HEADPHONE]

## —F1 Board—



## —H1 Board—



**F2**

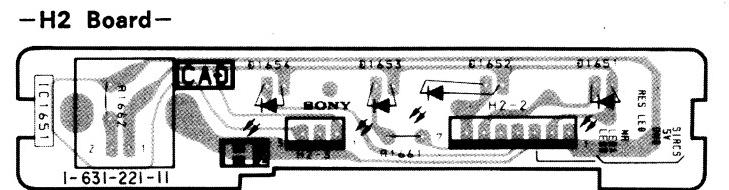
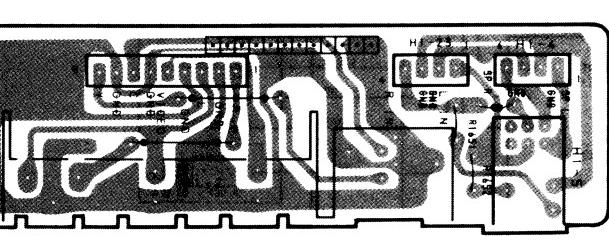
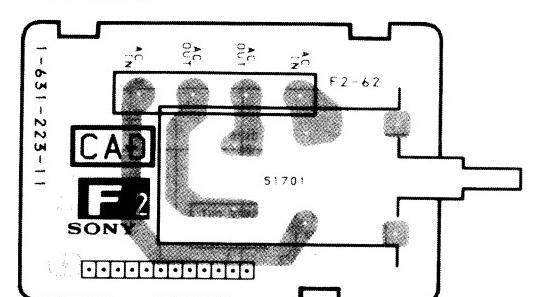
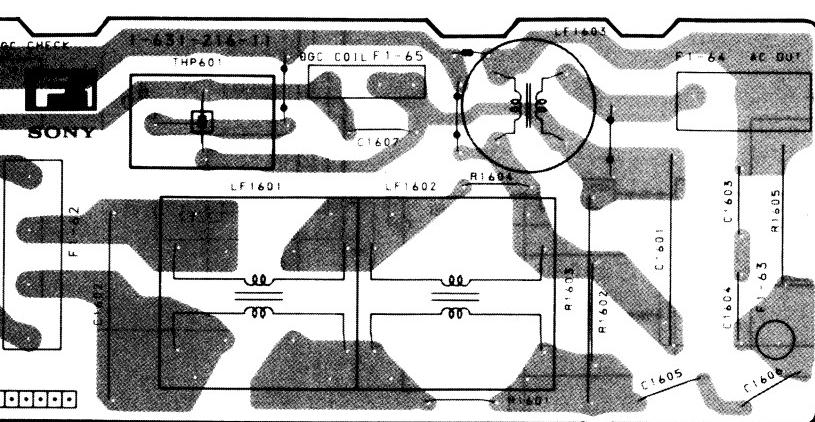
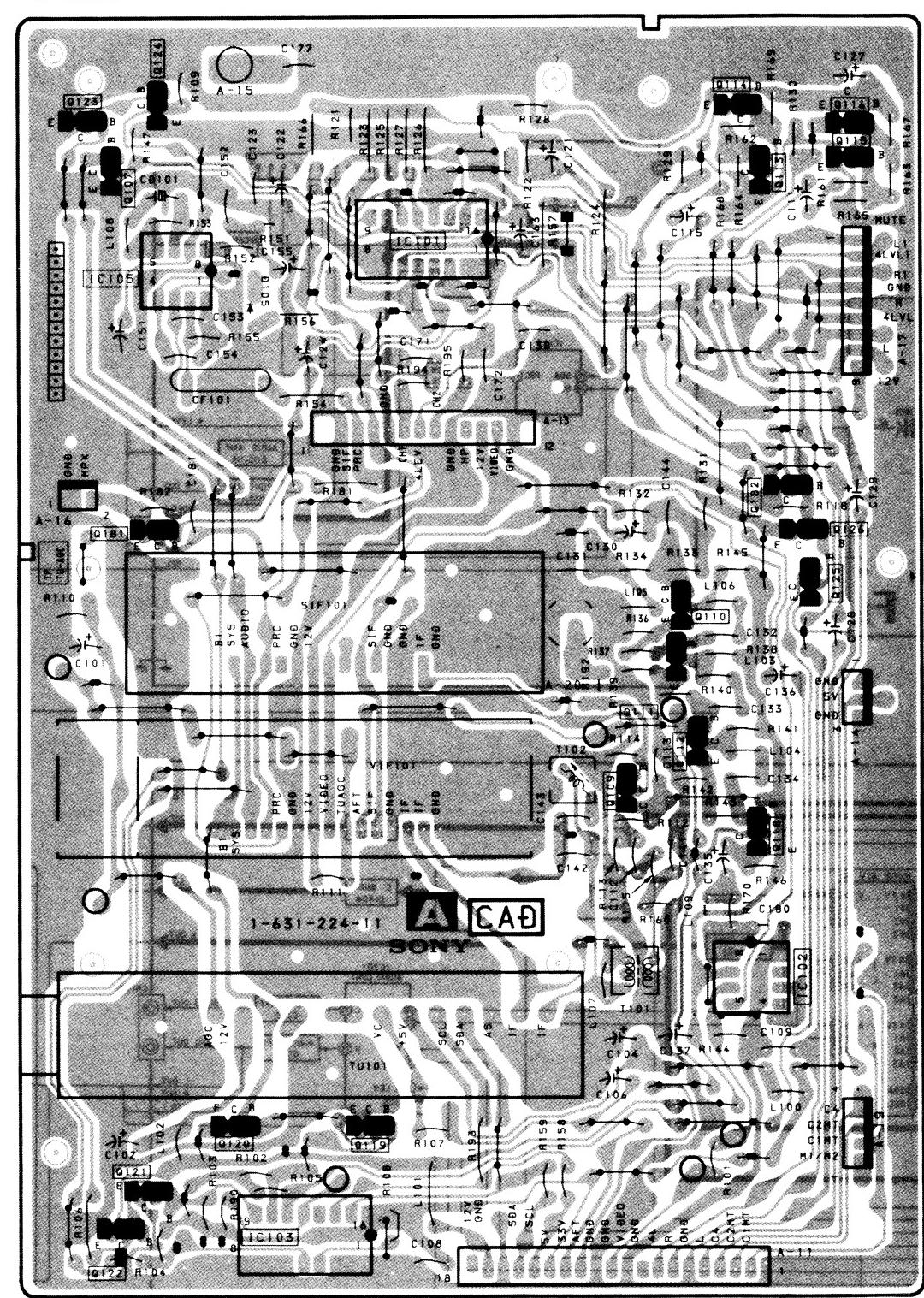
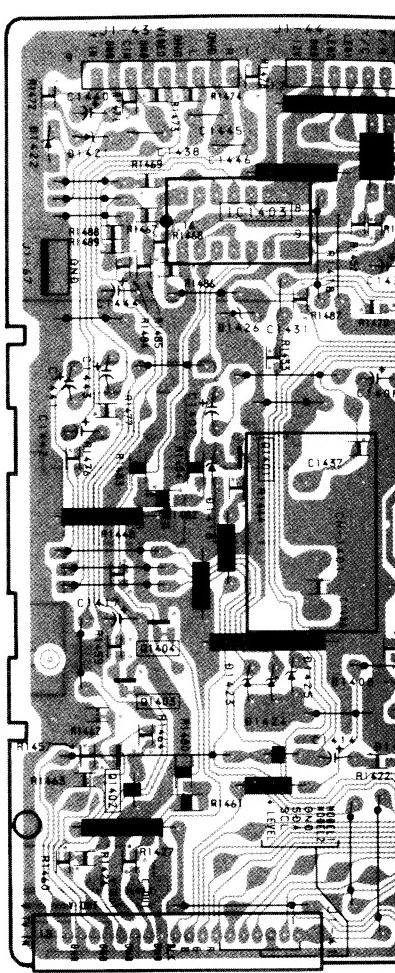
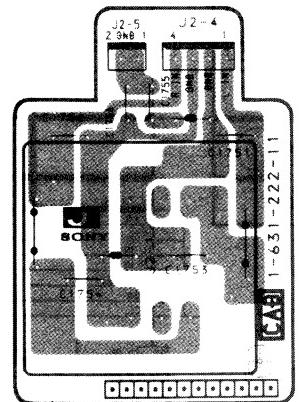
[POWER SWITCH]

**H1**[CONTROL SW, AV INPUT,  
HEADPHONE]**H2**[SIRCS RECEIVER,  
INDICATOR]**A**[TUNER,  
VIF SIF]**J1**[AUDIO CONTROL, AV INPUT,  
SCART VIDEO OUT,  
EAST-WEST CORRCTION]**J2**

[SPEAKER TERMINAL]

**Y**[NOISE  
REDUCTION]

C

**-A Board-****-J1 Board-****-J2 Board-**

## SIRCS RECEIVER INDICATOR

A [ TUNER,  
VIF SIF ]

J1

AUDIO CONTROL, AV INPUT  
SCART VIDEO OUT,  
EAST-WEST CORRECTION

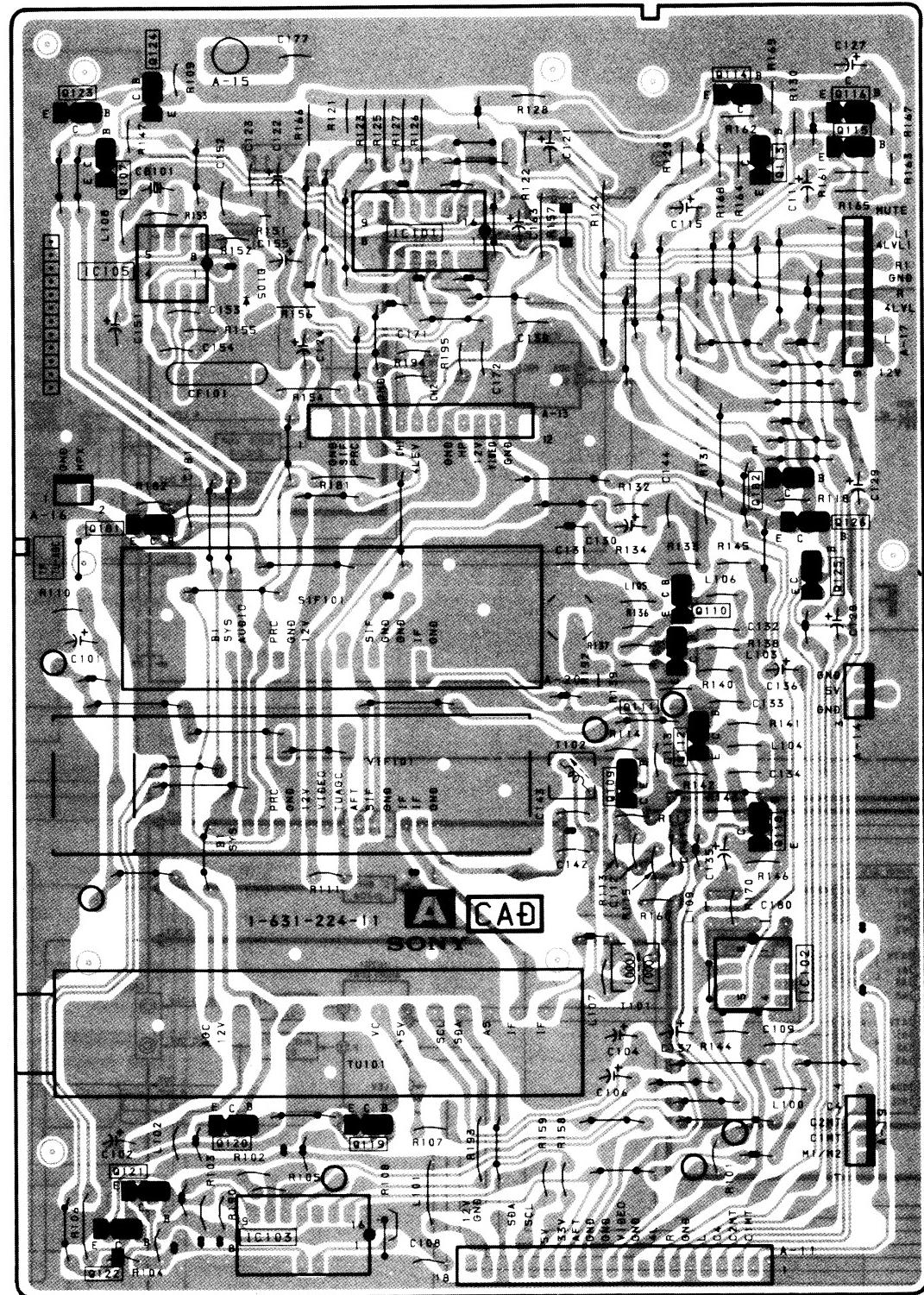
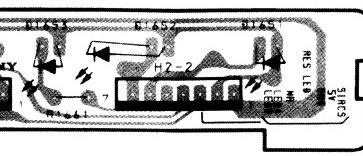
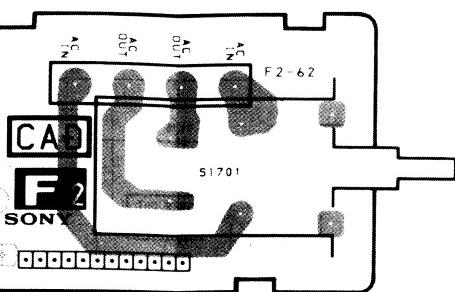
J2

[SPEAKER TERMINAL] Y [ NO RE ]

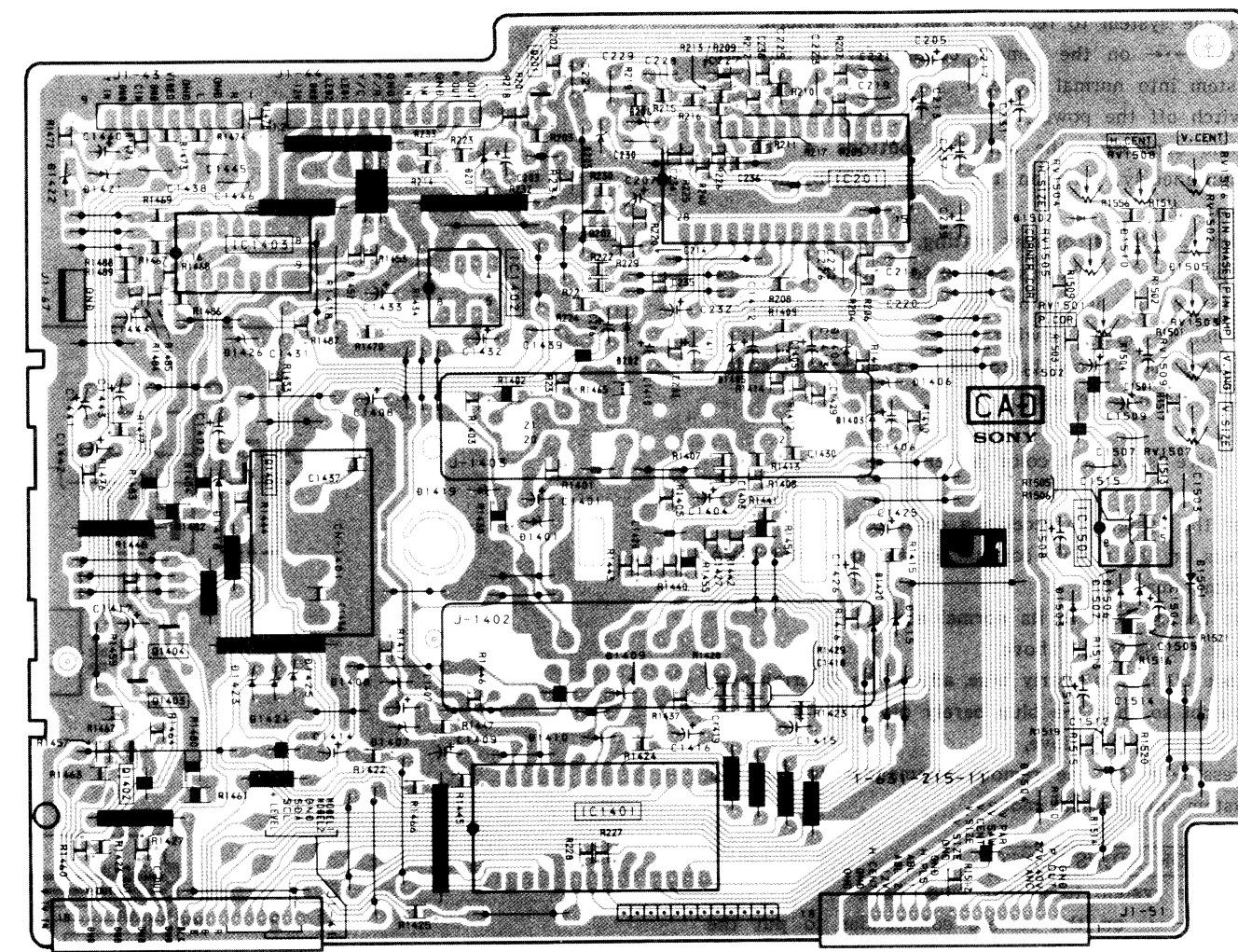
[NOISE  
REDUC]

## 2 Board—

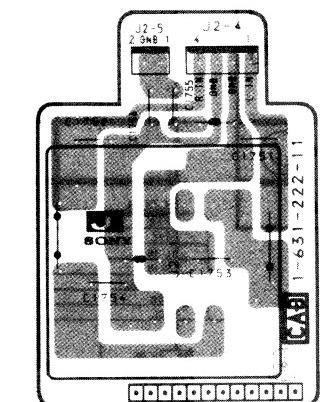
- A Board -



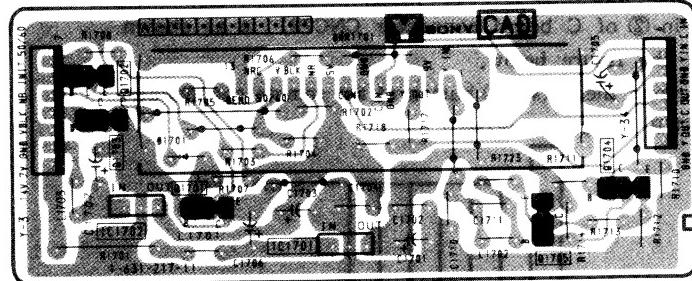
- J1 Board -

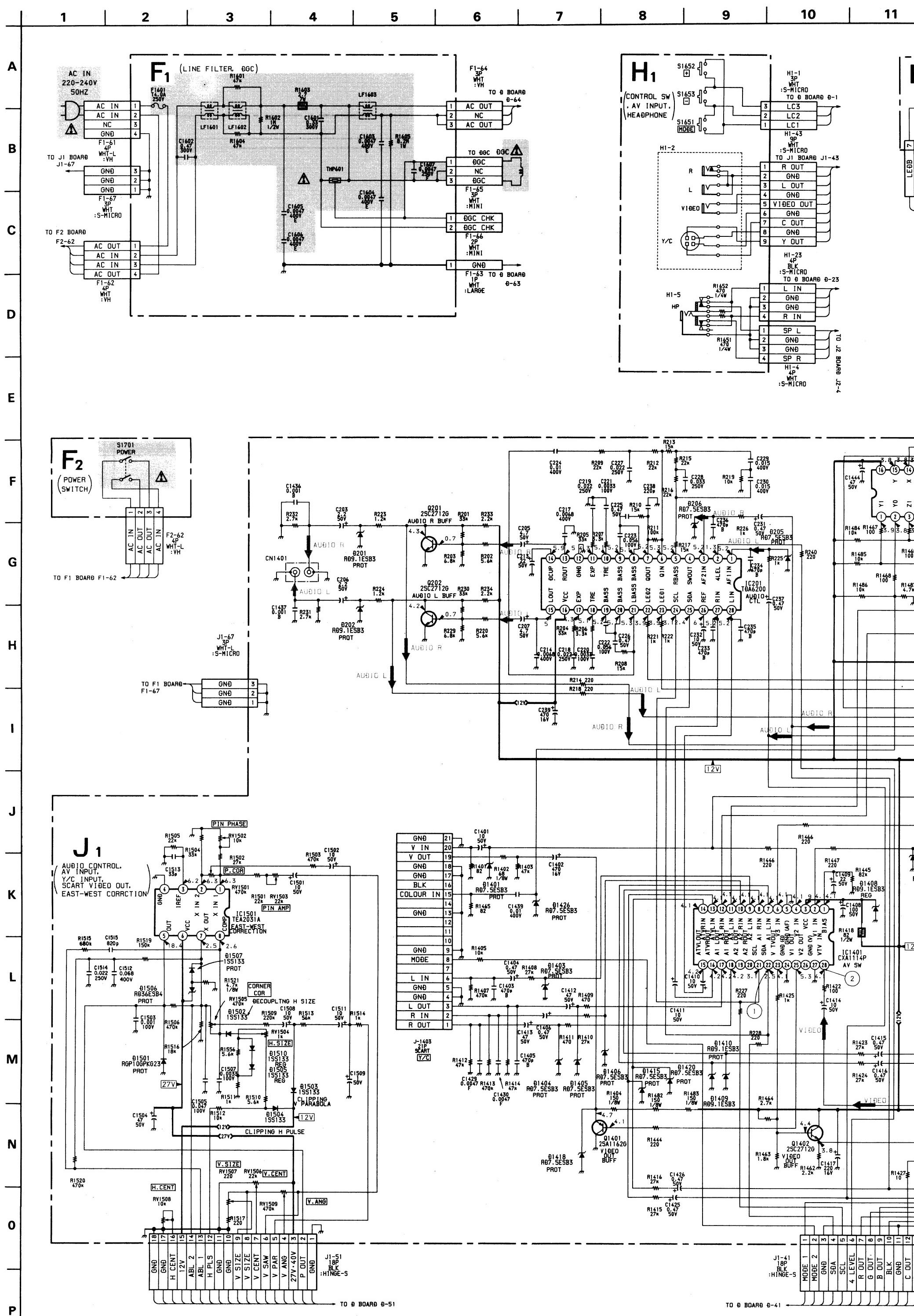


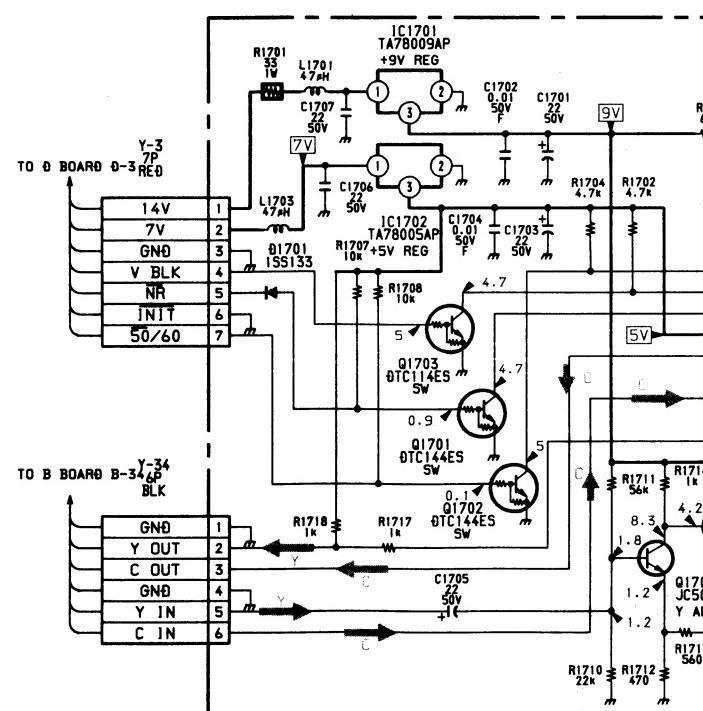
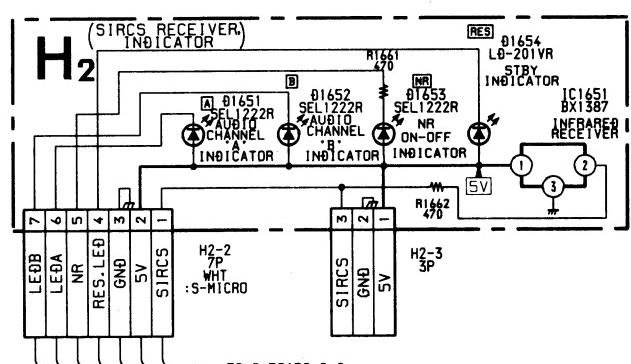
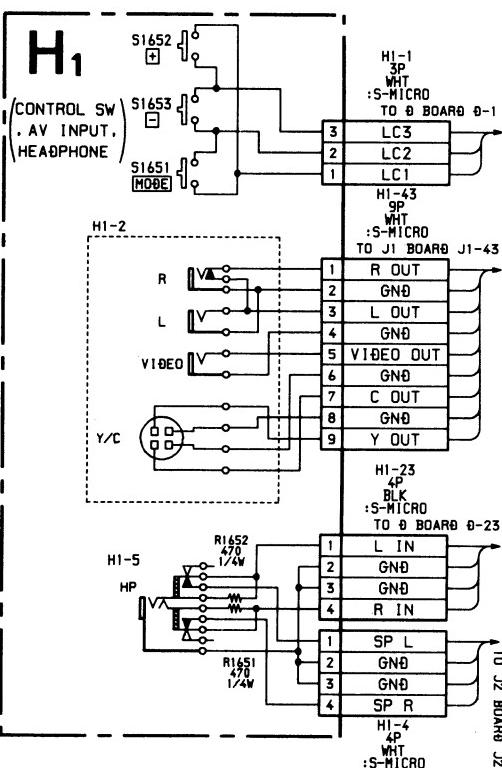
-J2 Board-



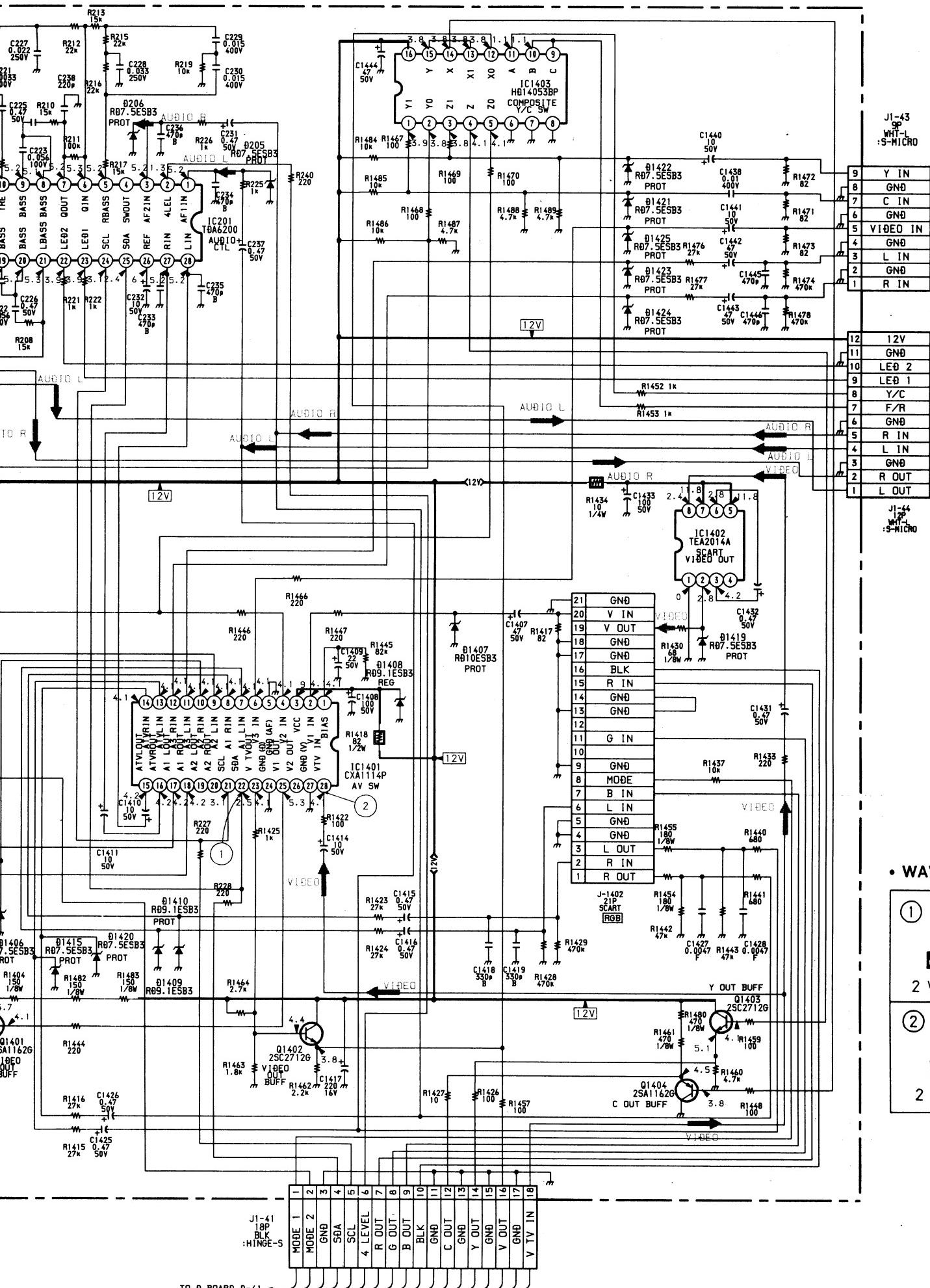
- Y Board -



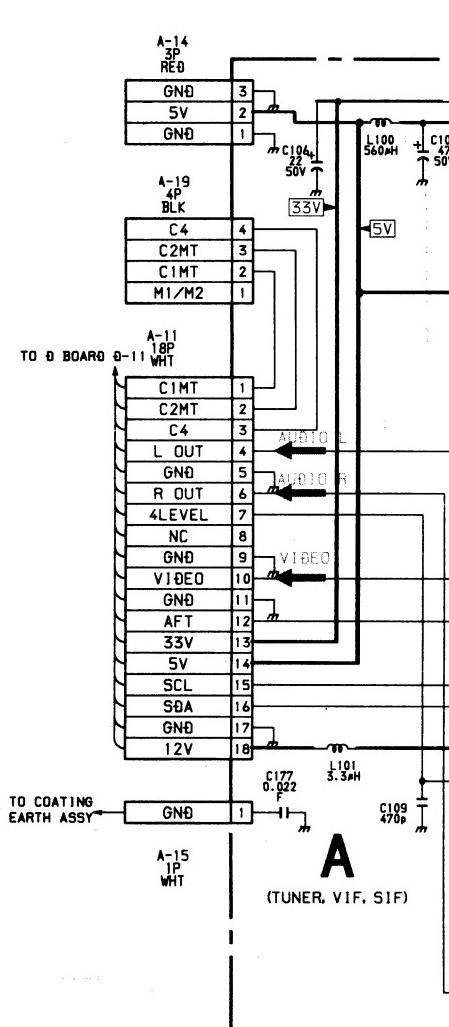
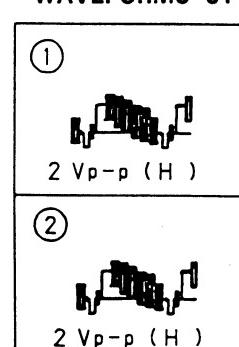


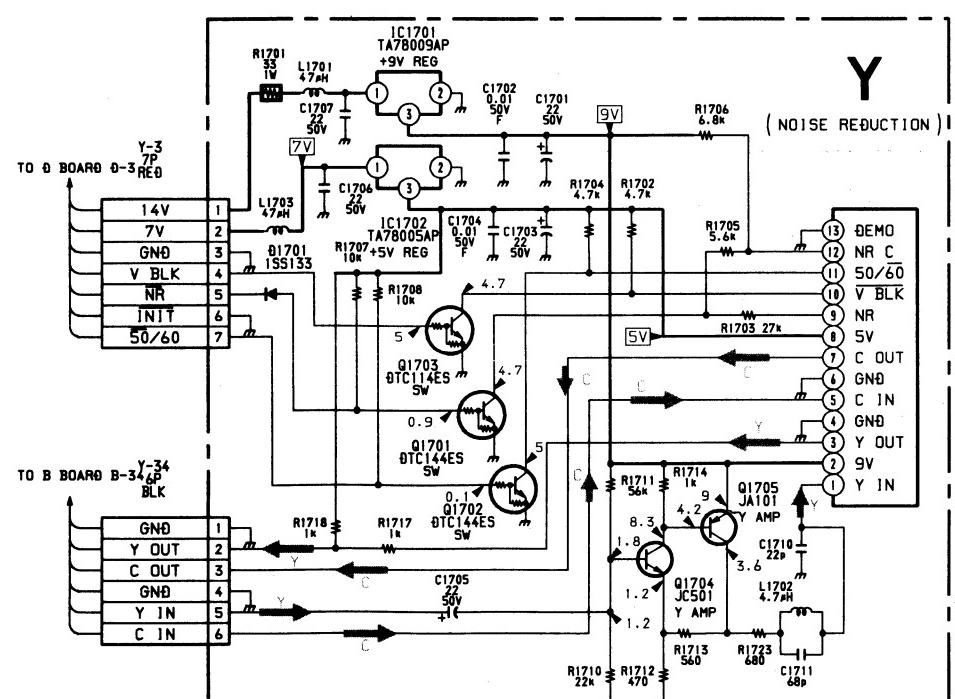


H<sub>2</sub> BOARD IC1651 BX1387

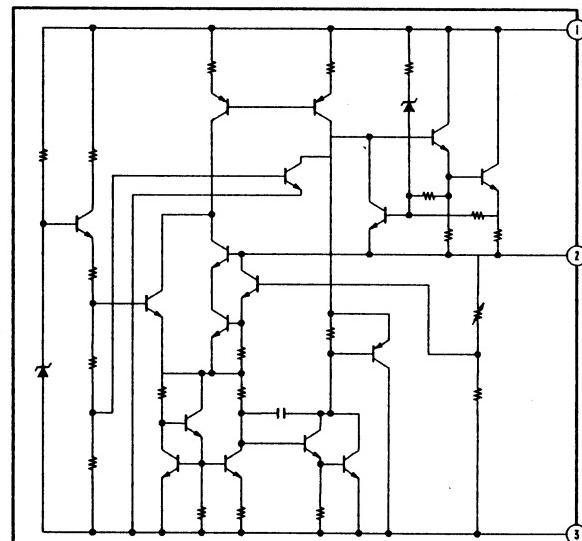


WAVEFORMS - II BOARD

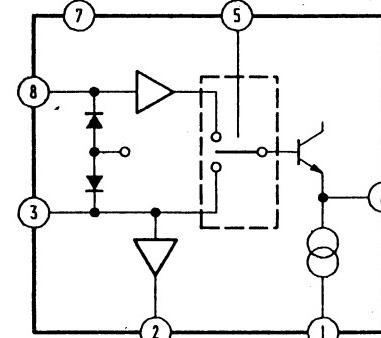




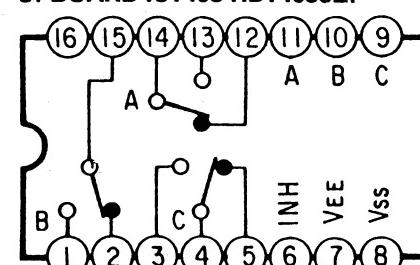
**Y BOARD IC701 TA78009AP**  
**Y BOARD IC702 TA78005AP**



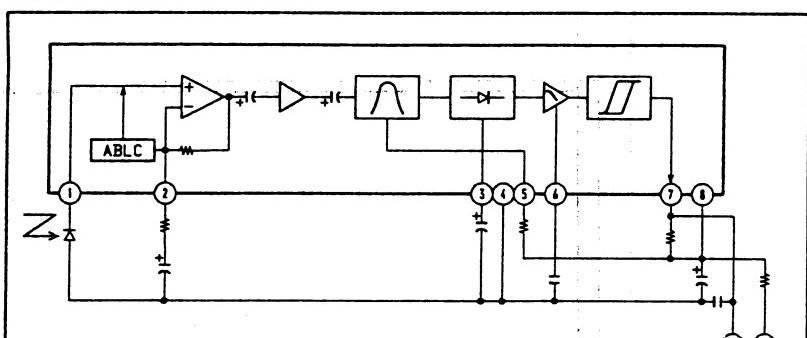
J1 BOARD IC1402 TEA2014A



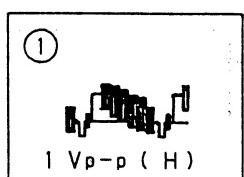
J1 BOARD IC1403 HD14053BI



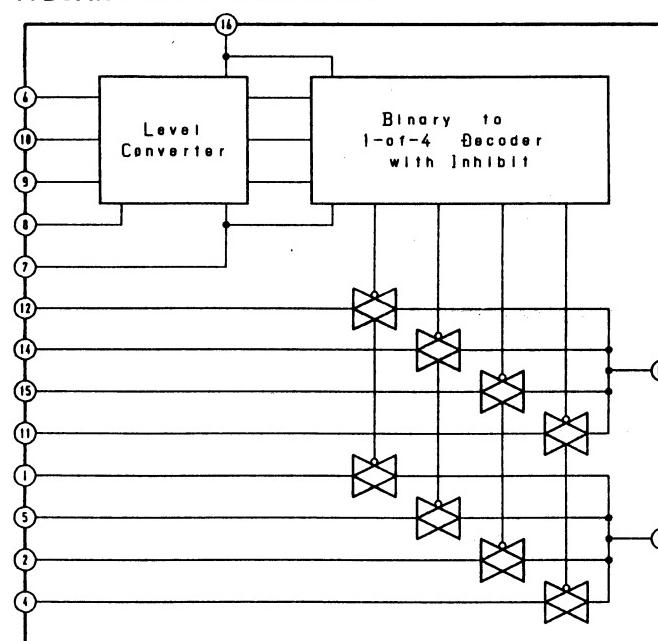
H<sub>2</sub> BOARD IC1651 BX1387



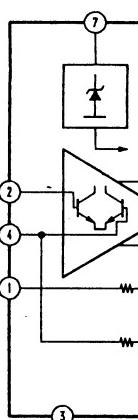
- WAVEFORMS A BOARD



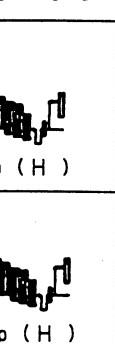
A BOARD IC101 TC4052BPHB



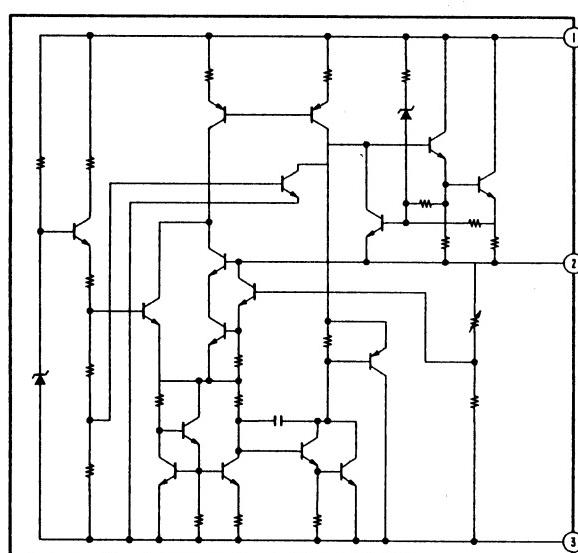
A BOARD



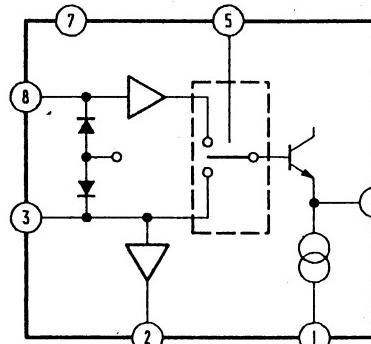
FORMS J1 BOARD



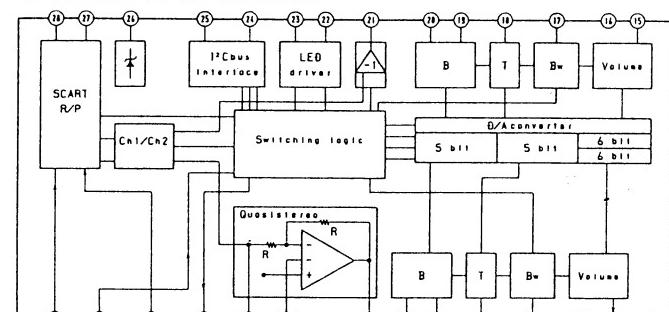
**Y BOARD IC701 TA78009AP  
Y BOARD IC702 TA78005AP**



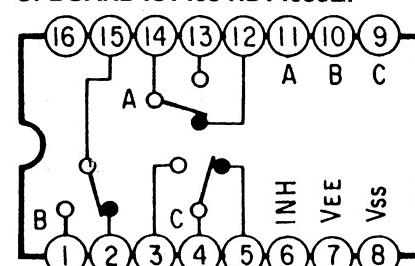
**J1 BOARD IC1402 TEA2014A**



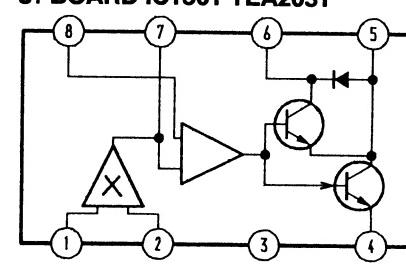
**J1 BOARD IC201 TDA6200**



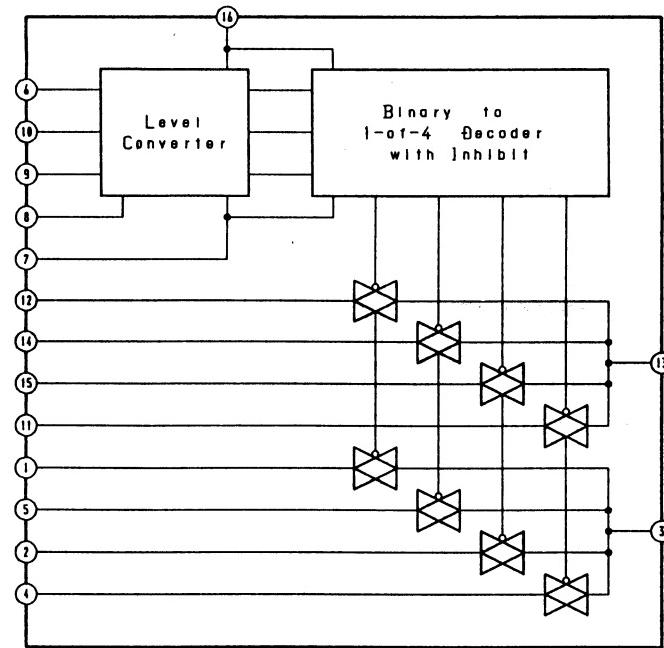
**J1 BOARD IC1403 HD14053BP**



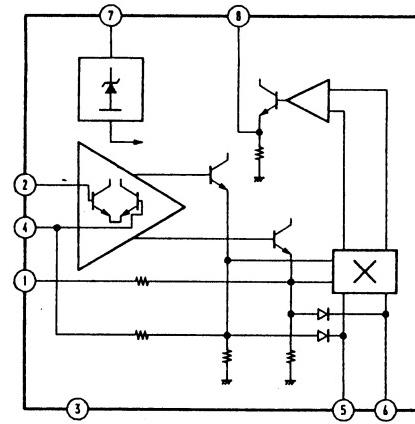
**J1 BOARD IC1501 TEA2031**



**A BOARD IC101 TC4052BPHB**

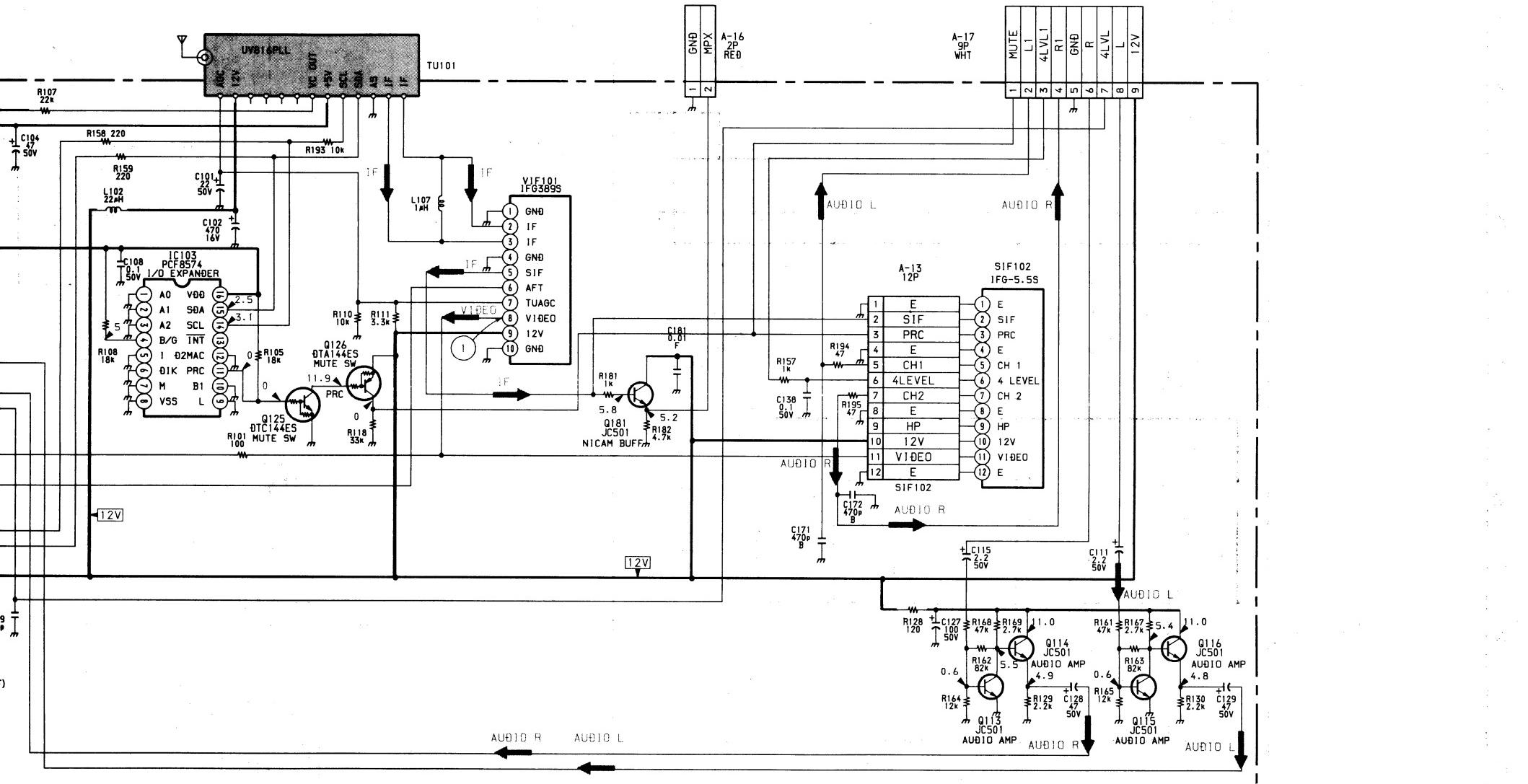


**A BOARD IC105 TBA129**



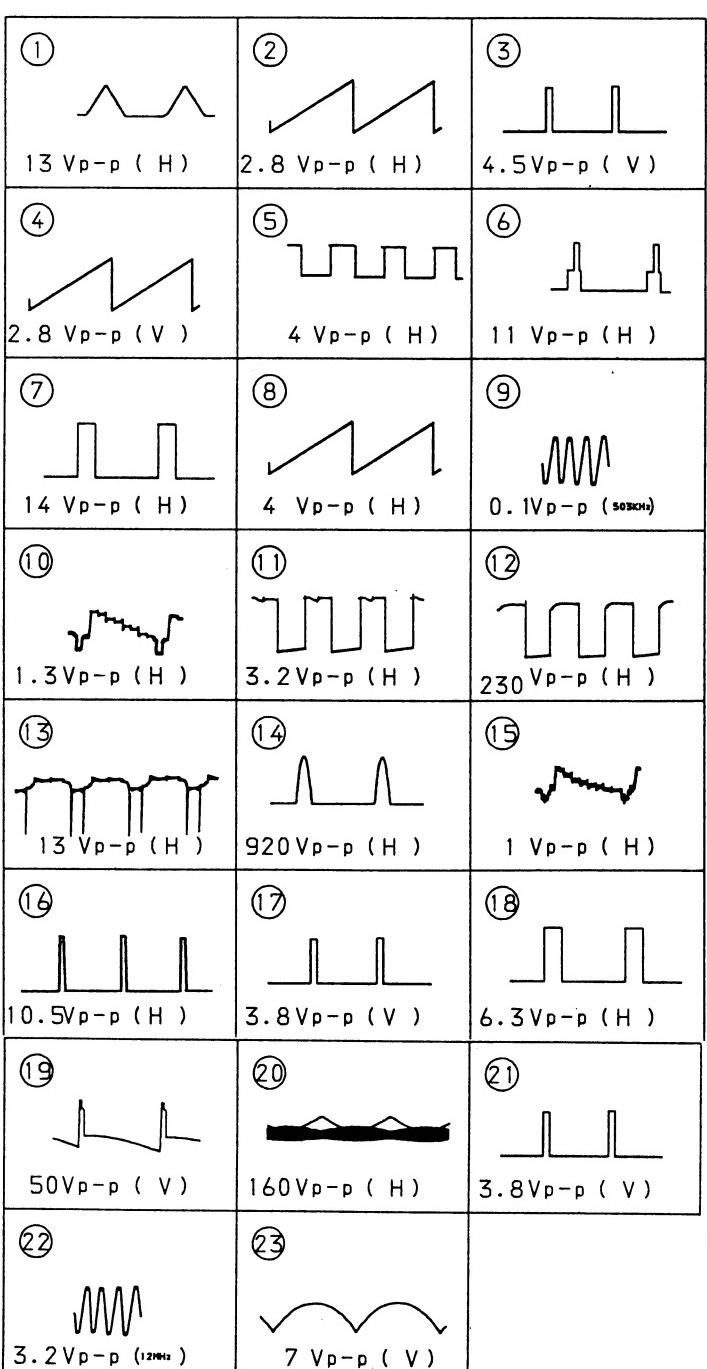
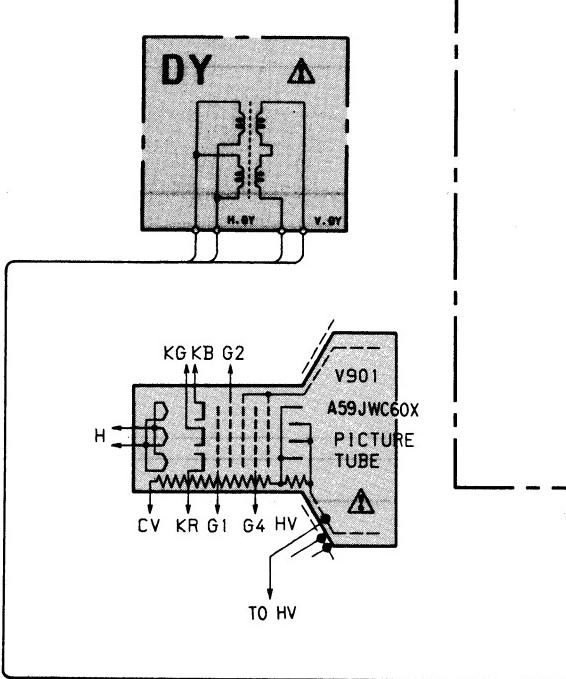
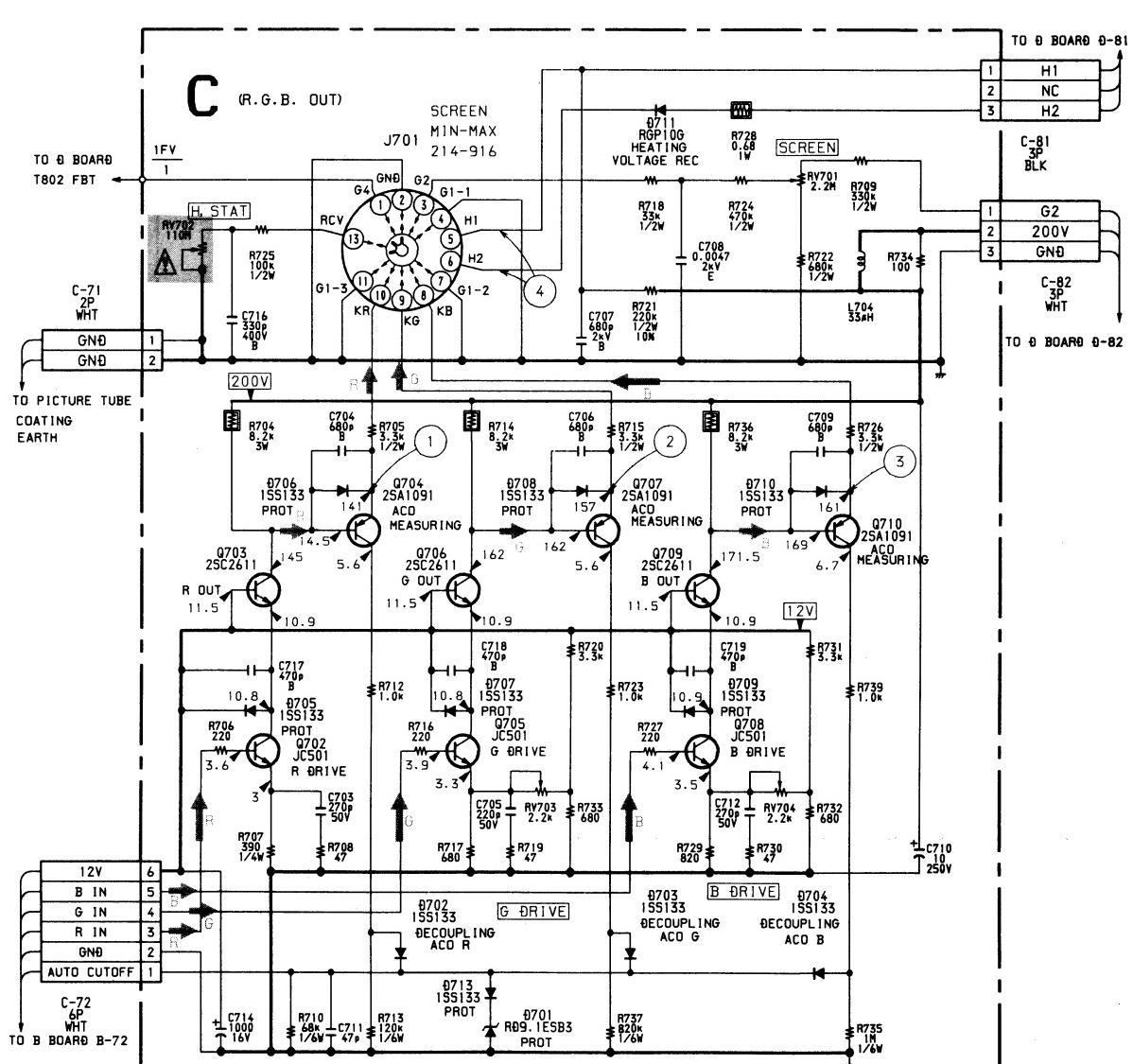
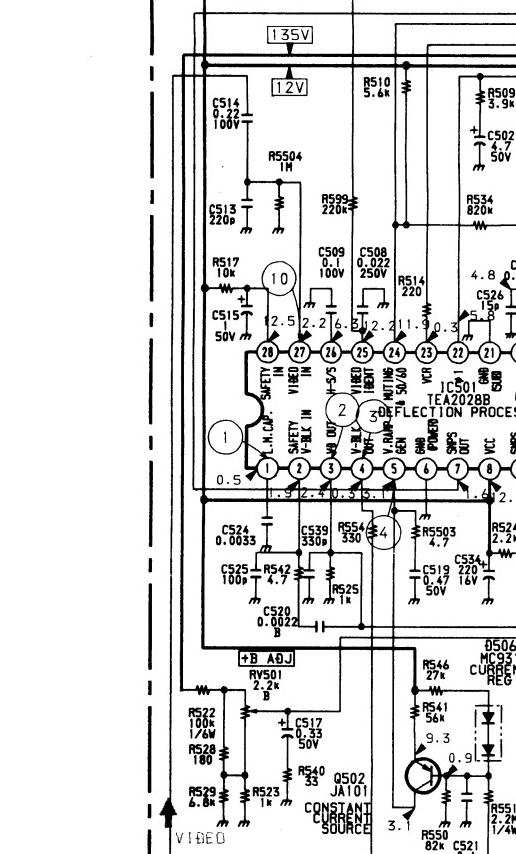
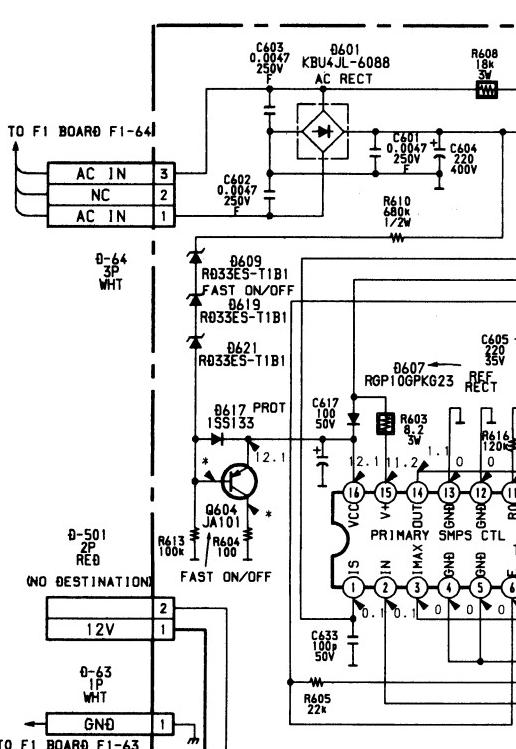
X1387

A BOARD

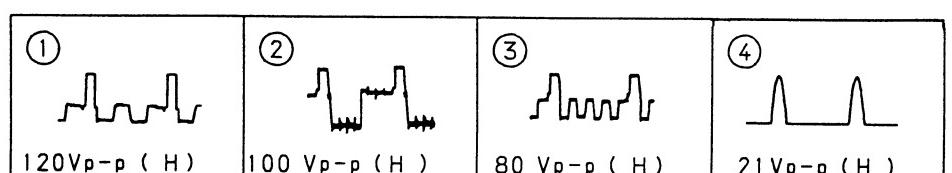


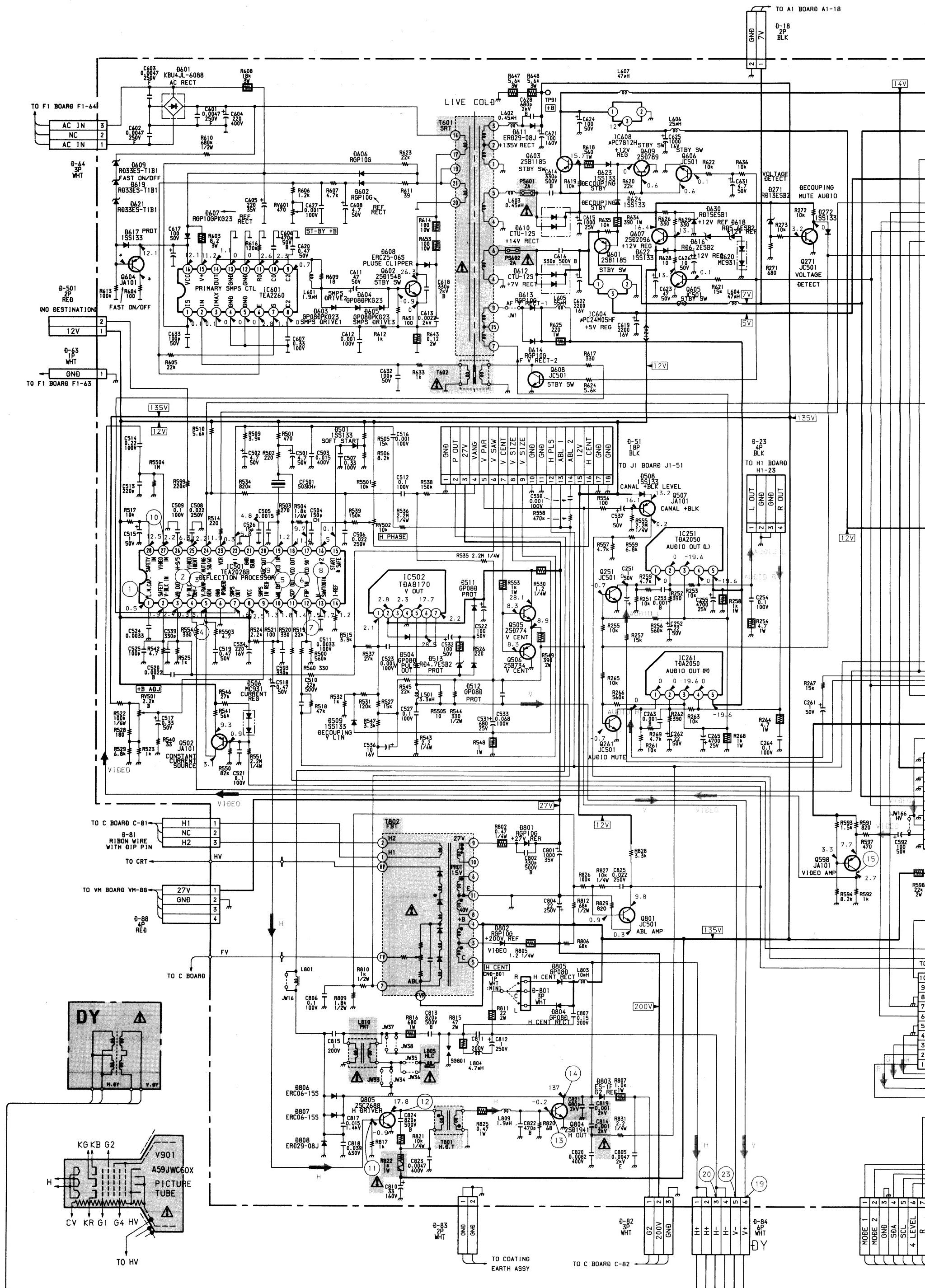
**A**

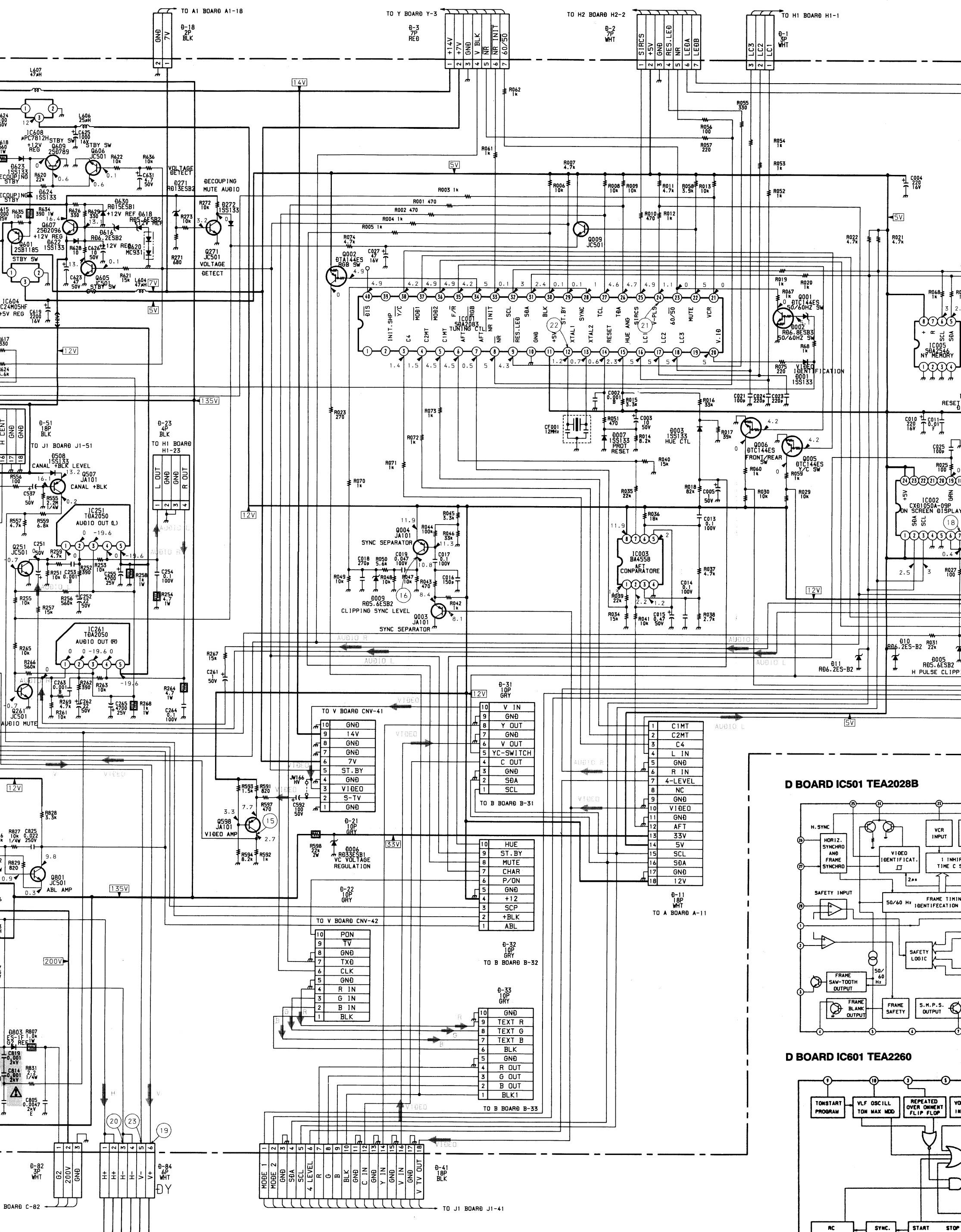
## • WAVEFORMS D BOARD

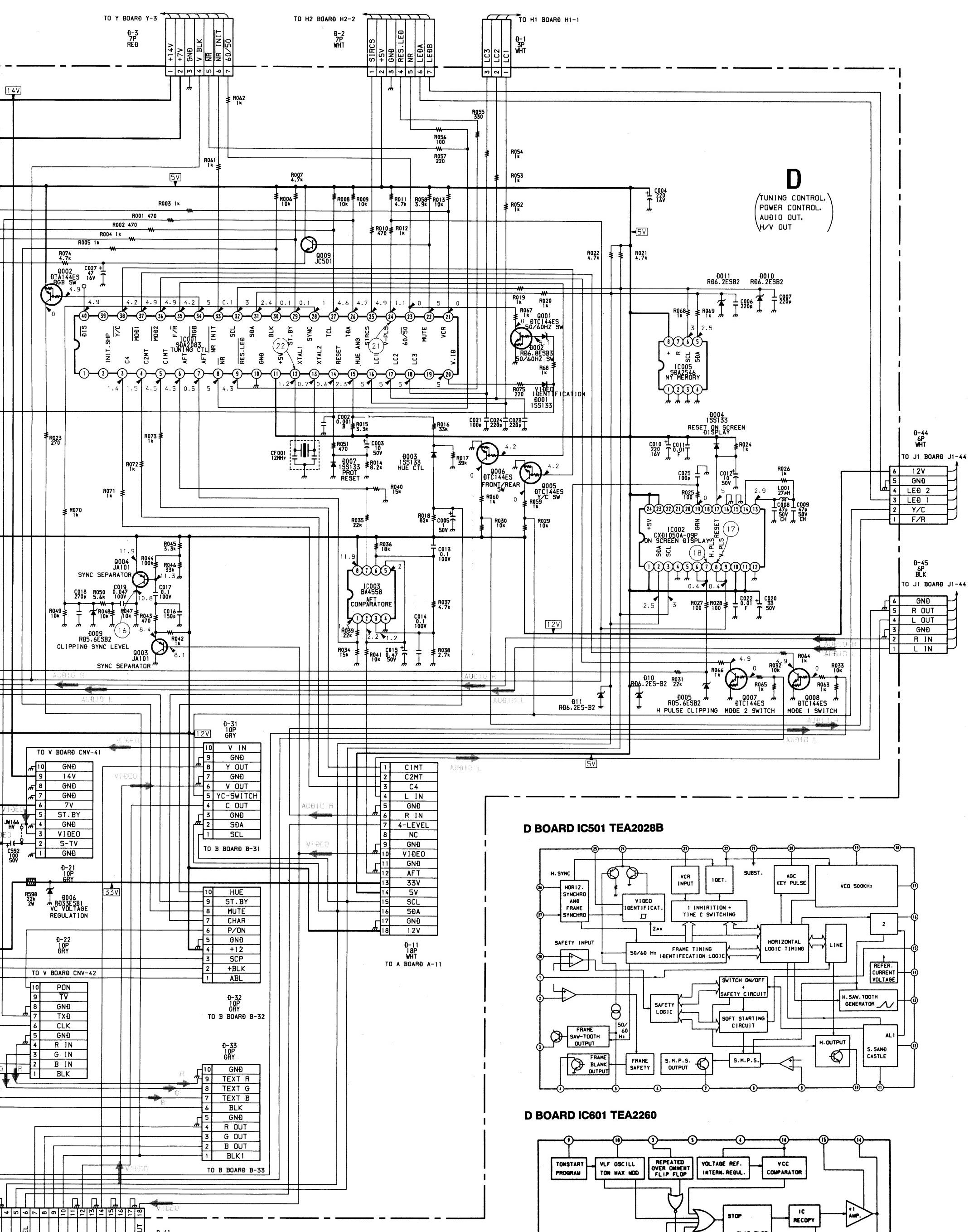
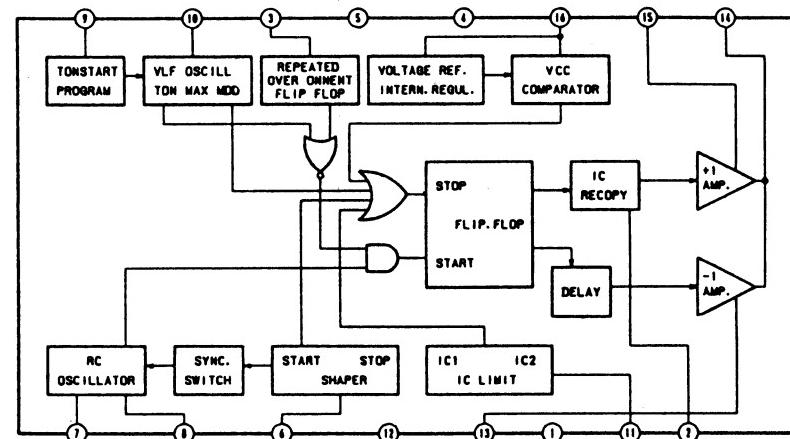
**B****C****D****E****F****G****H****I****J****K****L****M****N****O****P**

## • WAVEFORMS C BOARD



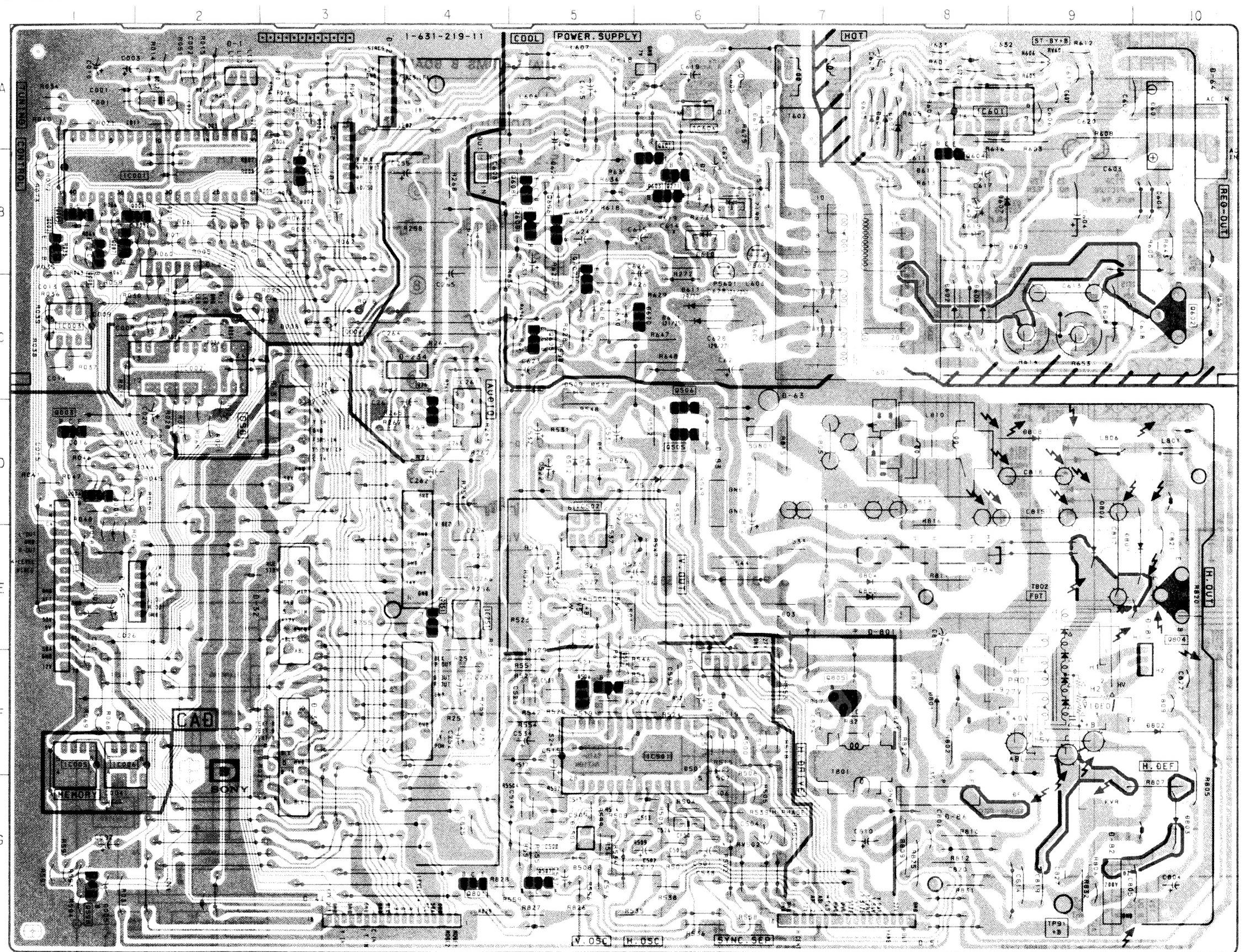




**D BOARD IC601 TEA2260**

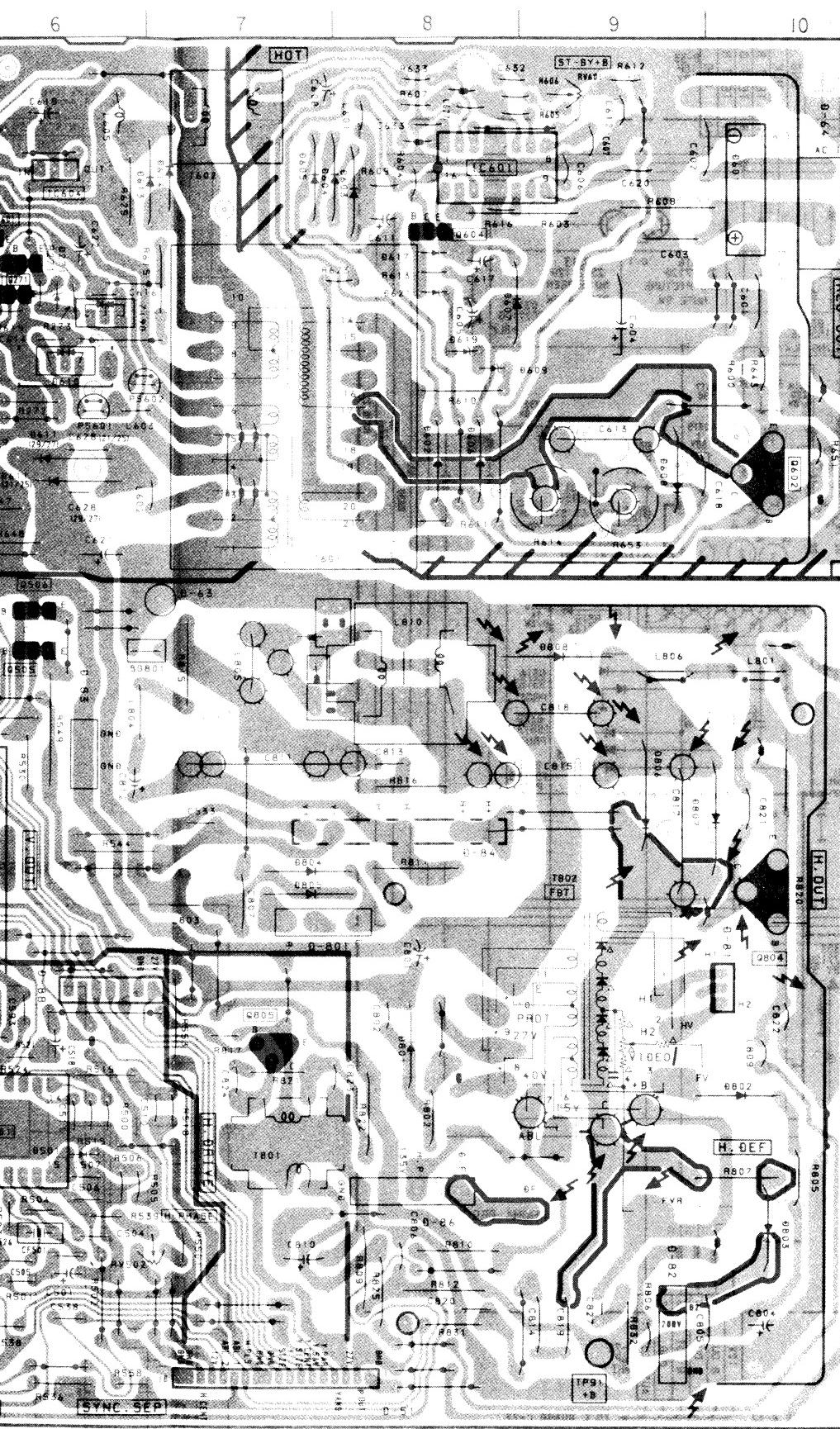
**D** [TUNING CONTROL, POWER CONTROL]  
AUDIO OUT, H/V OUT

-D Board-



D BOARD

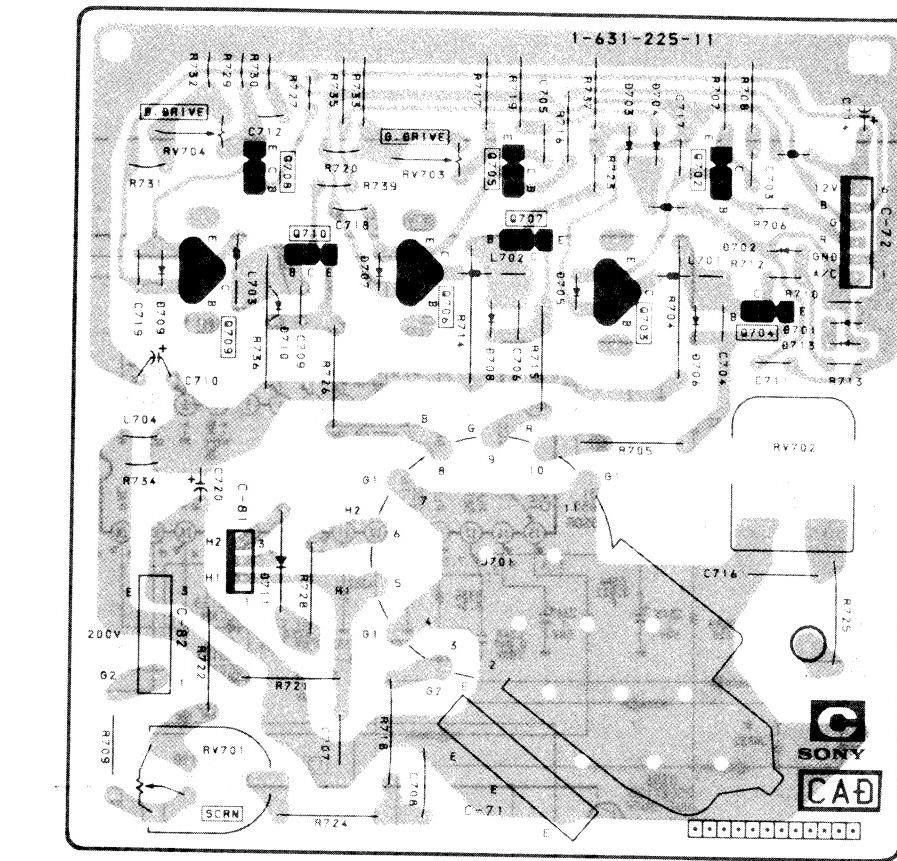
IC	DIODE	VARIABLE RESISTOR	TEST POINT
IC001	B-1	0001 A-3	RV501 E-5
IC002	C-2	0002 B-3	RV502 G-6
IC003	C-1	0003 A-3	RV601 A-9
IC005	F-1	0004 C-2	
IC006	F-1	0005 G-1	
IC251	E-4	0006 E-1	
IC261	C-4	0007 A-2	
IC501	F-6	0008 C-2	
IC502	D-6	0009 D-1	
IC601	A-8	0010 B-2	
IC604	A-6	0011 B-2	
IC608	B-4	0271 B-6	
		0272 B-4	
		0501 F-6	
		0504 D-5	
		0506 F-5	
		0508 G-5	
		0509 C-5	
		0511 D-9	
		0512 D-5	
		0513 D-5	
		0601 A-10	
		0602 C-8	
		0603 A-8	
		0604 A-7	
		0605 A-7	
		0251 E-4	
		0261 C-4	
		0271 B-6	
		Q502 F-5	
		Q505 D-6	
		Q506 C-6	
		Q507 G-5	
		Q601 A-6	
		Q602 C-10	
		Q603 B-6	
		Q604 B-7	
		Q605 C-5	
		Q606 B-5	
		Q607 B-5	
		Q608 B-5	
		Q609 B-5	
		Q598 G-1	
		Q801 G-4	
		Q804 E-10	
		Q805 F-7	



D BOA

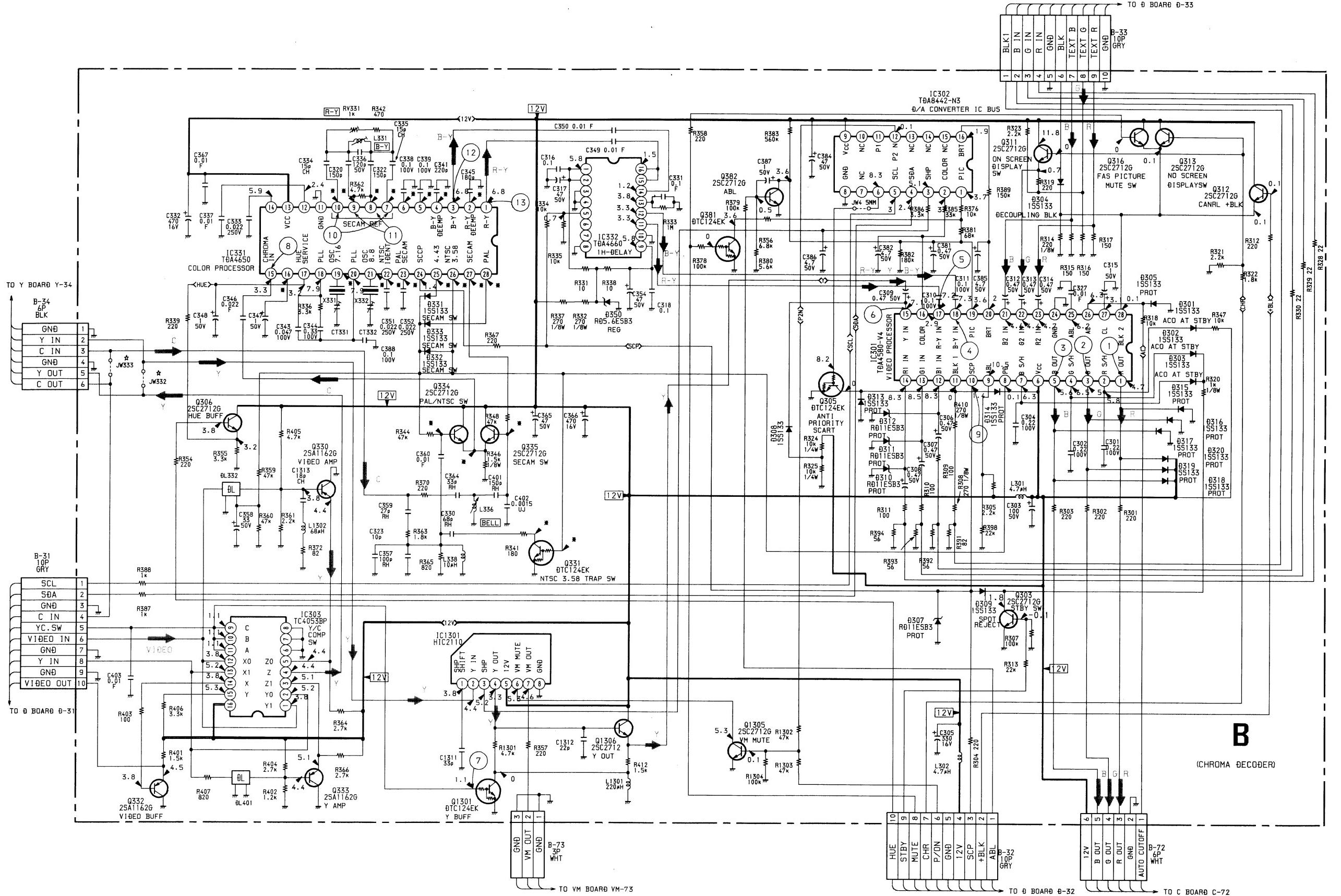
IC		DIODE		803	G-1
IC001	B-1	8001	A-3	804	E-7
IC002	C-2	8002	B-3	805	E-7
IC003	C-1	8003	A-3	806	D-9
IC005	F-1	8004	C-2	806	E-9
IC006	F-1	8005	G-1	807	D-9
IC251	E-4	8006	E-1	808	E-1
IC261	C-4	8007	A-2		
IC501	F-6	8008	C-2		
IC502	D-6	8009	D-1		
IC601	A-8	8010	B-2		
IC604	A-6	8011	B-2		
IC608	B-4	8271	B-6		
TRANSISTOR		8272	B-4	RV501	E-5
Q001	B-3	8501	F-6	RV502	G-6
Q002	B-1	8504	D-5	RV601	A-9
Q003	D-1	8506	F-5		
Q004	D-1	8508	G-5		
Q005	B-1	8509	C-5		
Q006	B-1	8511	D-9		
Q007	B-1	8512	D-5		
Q008	B-1	8513	D-5		
Q009		8601	A-10		
Q251	E-4	8602	C-8		
Q261	C-4	8603	A-8		
Q271	B-6	8604	A-7		
Q502	F-5	8605	A-7		
Q505	D-6	8606	C-8		
Q506	C-6	8607	B-8		
Q507	G-5	8608	C-9		
Q601	A-6	8609	B-8		
Q602	C-10	8610	B-6		
Q603	B-6	8611	C-6		
Q604	B-7	8612	B-6		
Q605	C-5	8613	A-6		
Q606	B-5	8614	A-7		
Q607	B-5	8616	C-5		
Q608	B-5	8617	B-8		
Q609	B-5	8618	C-5		
Q598	G-1	8619	B-8		
Q801	G-4	8620	C-6		
Q804	E-10	8621	B-8		
Q805	F-7	8622	C-5		
		8623	B-5		
		8624	B-5		
		8630	C-5		
		8801	F-8		
		8802	F10		

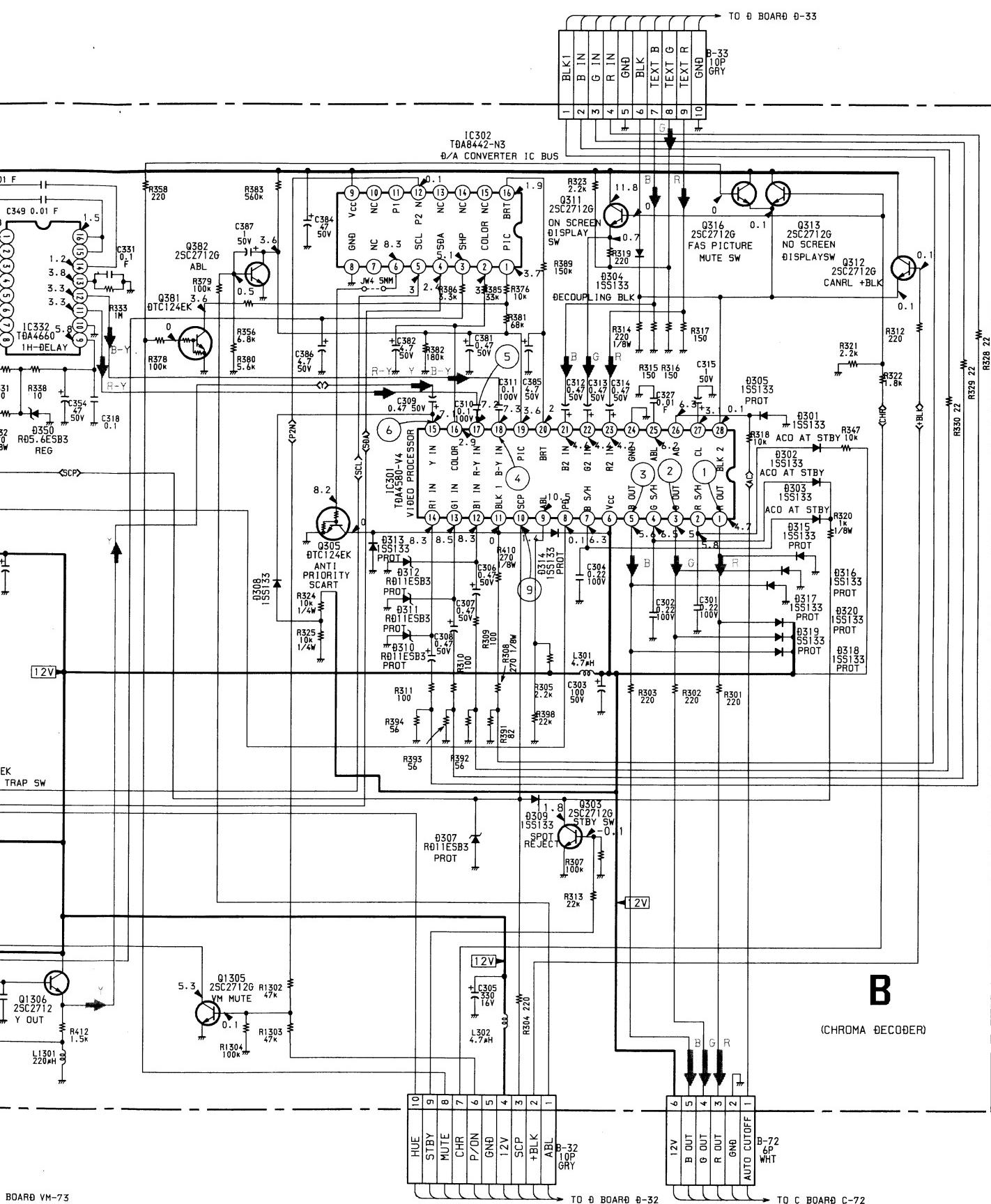
**C** [R · G · B OUT]  
-C Board-



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A

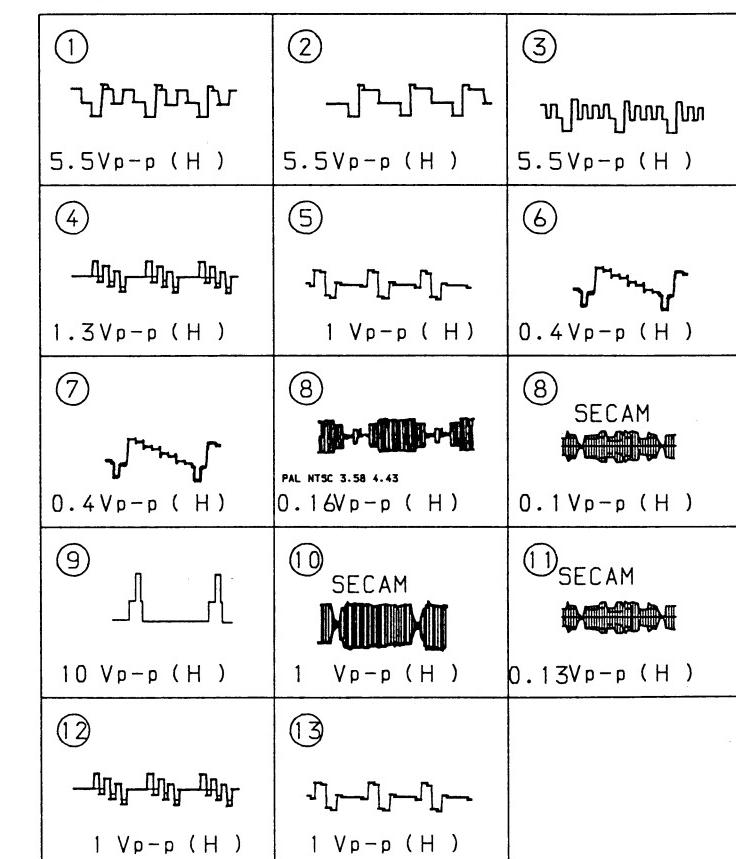




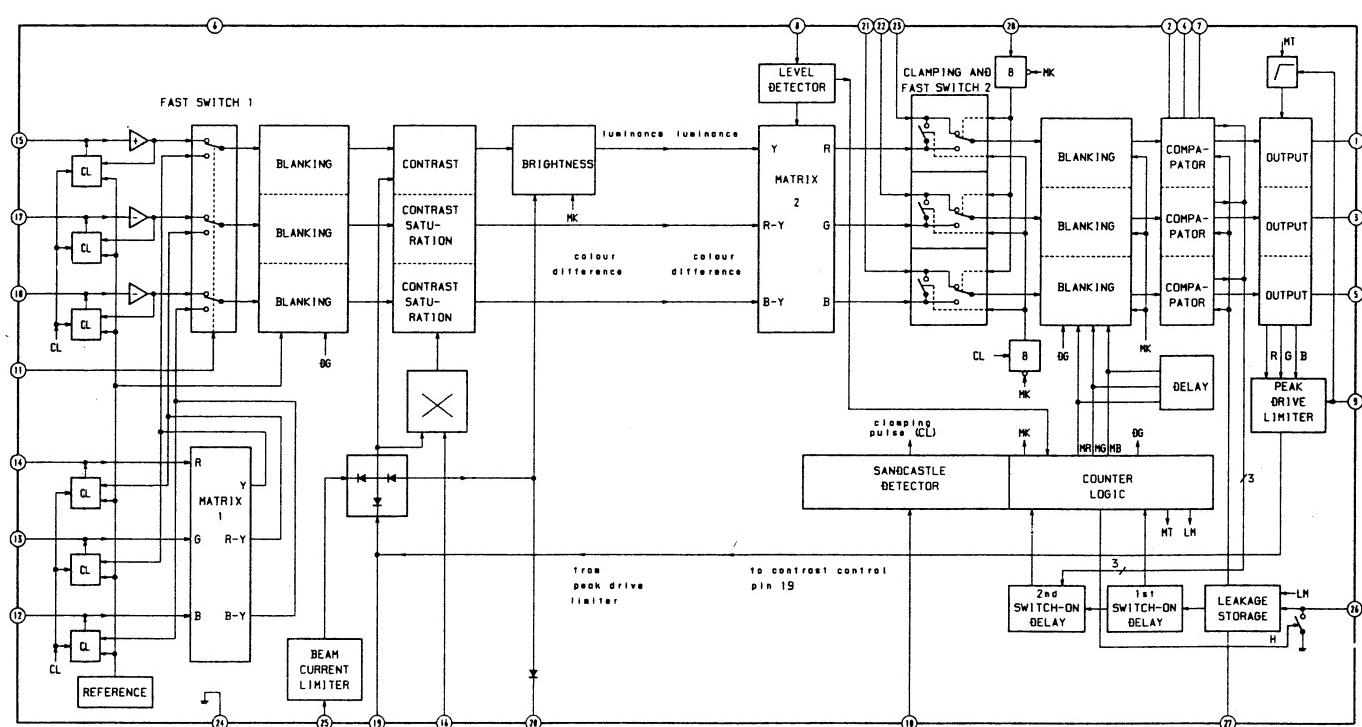
As to the voltage value shown by the mark ■ on the Schematic Diagram, see the another list.

	PAL	SECAM	NTSC.3.58	NTSC.4.43
IC331	7.5	7.3	7.5	7.4
	7.5	7.2	7.5	7.4
	10	10	10	9.8
	10	10	10	9.9
	4.9	3.4	4.9	4.9
	3.7	3	3.8	3.8
	3.7	3	3.8	3.8
	5	3.4	4.9	4.9
	(B)	0.1	0.1	5.8
		0.5	0.5	0
Q331	4.9	0.1	4.9	4.9
	4.3	4.6	4.3	4.3
Q335	0.1	5.3	0.1	0.1
	1.7	1.7	1.7	1.7

## • WAVEFORMS B BOARD



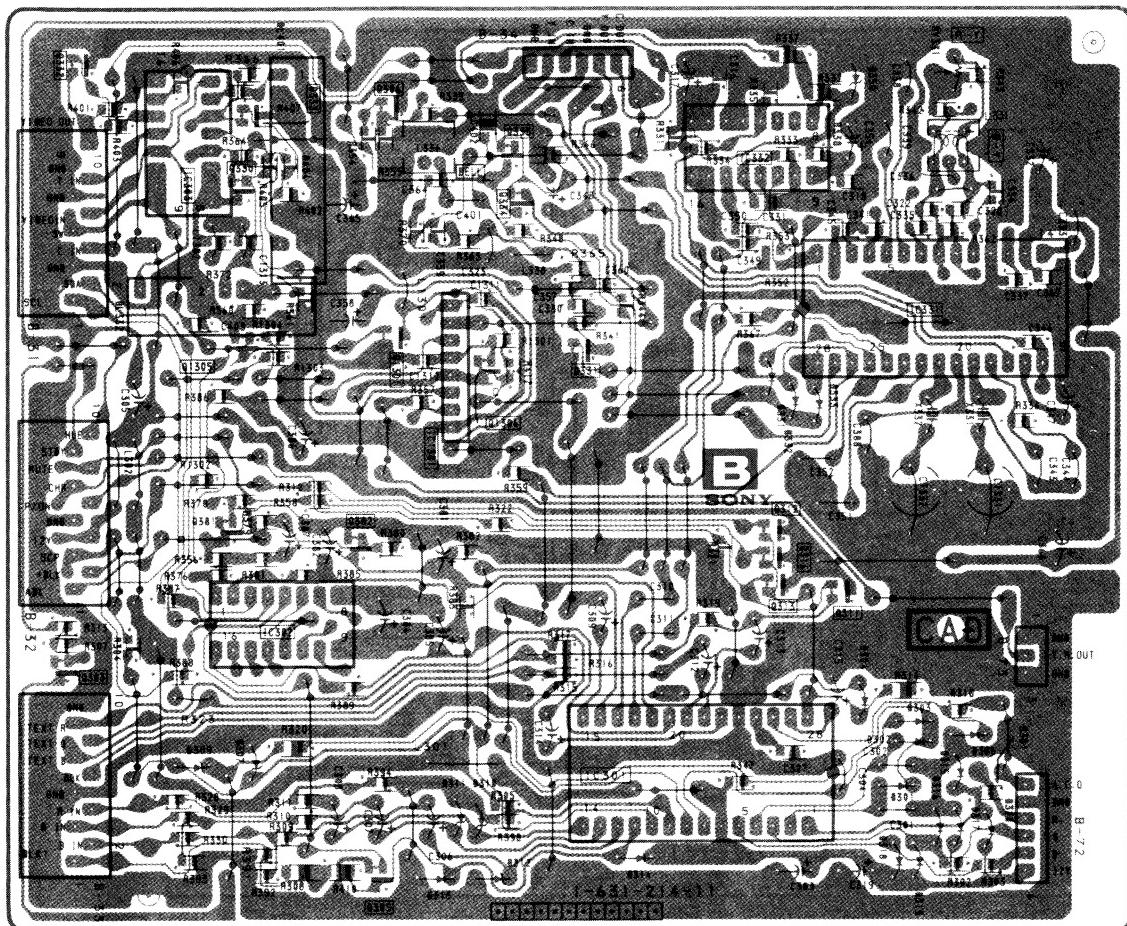
B BOARD IC301 TDA4580



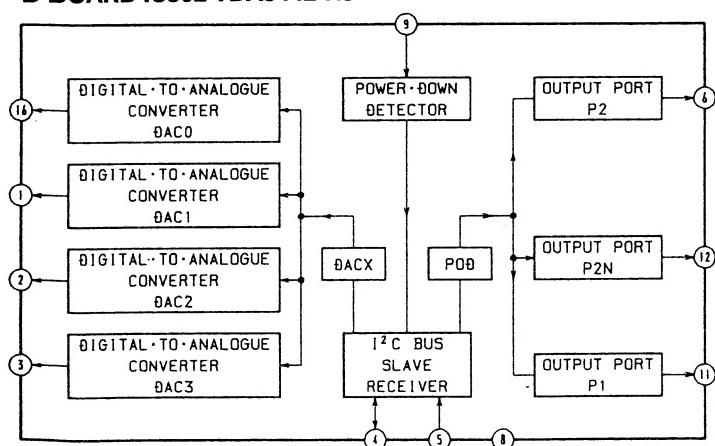
**B**

[ CHROMA  
DECODER ]

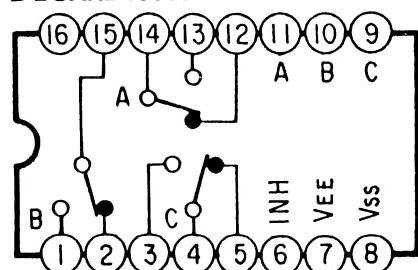
—B Board—



**B BOARD IC302 TDA8442-N3**



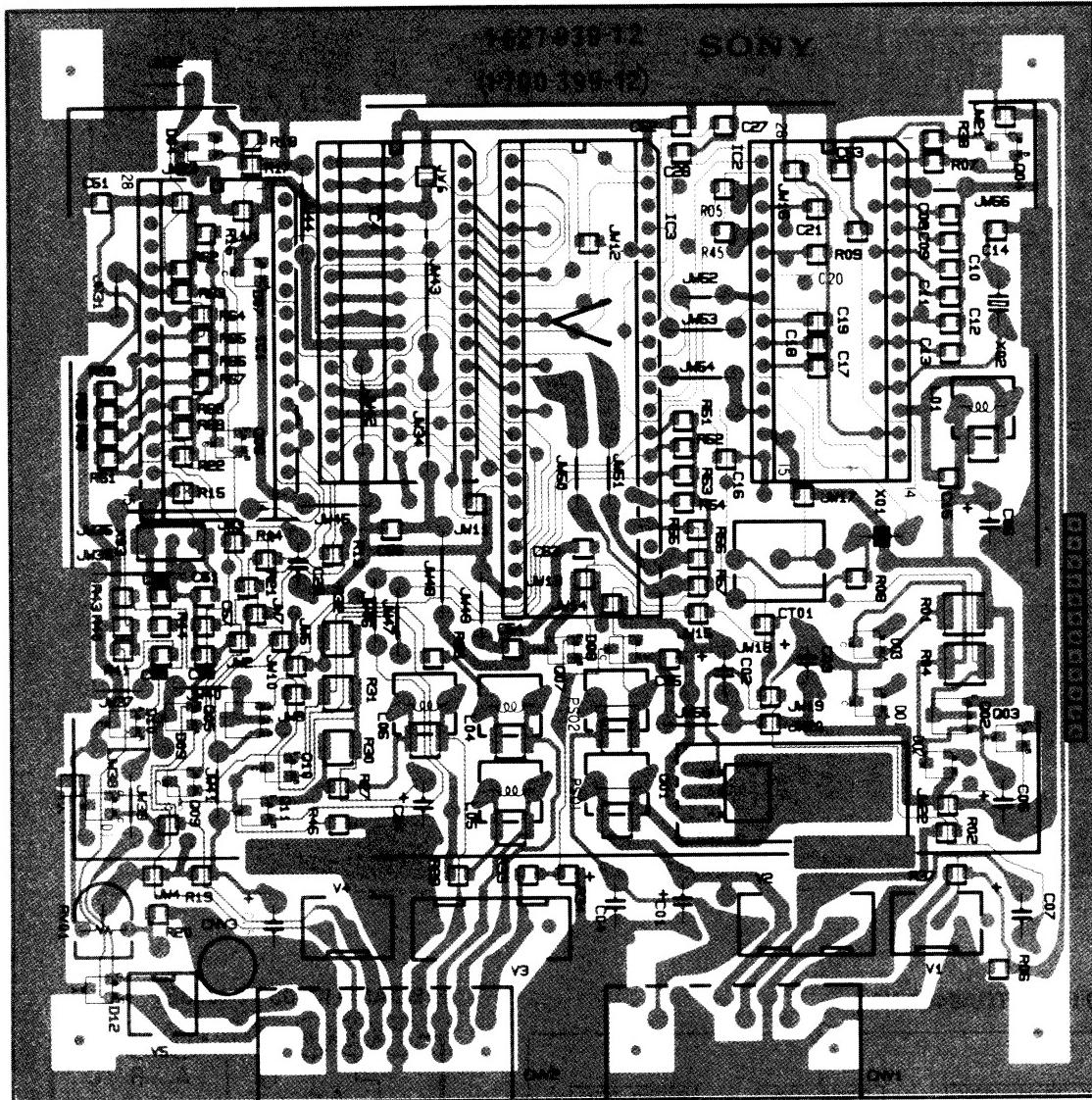
**B BOARD IC303 TC4053BP**



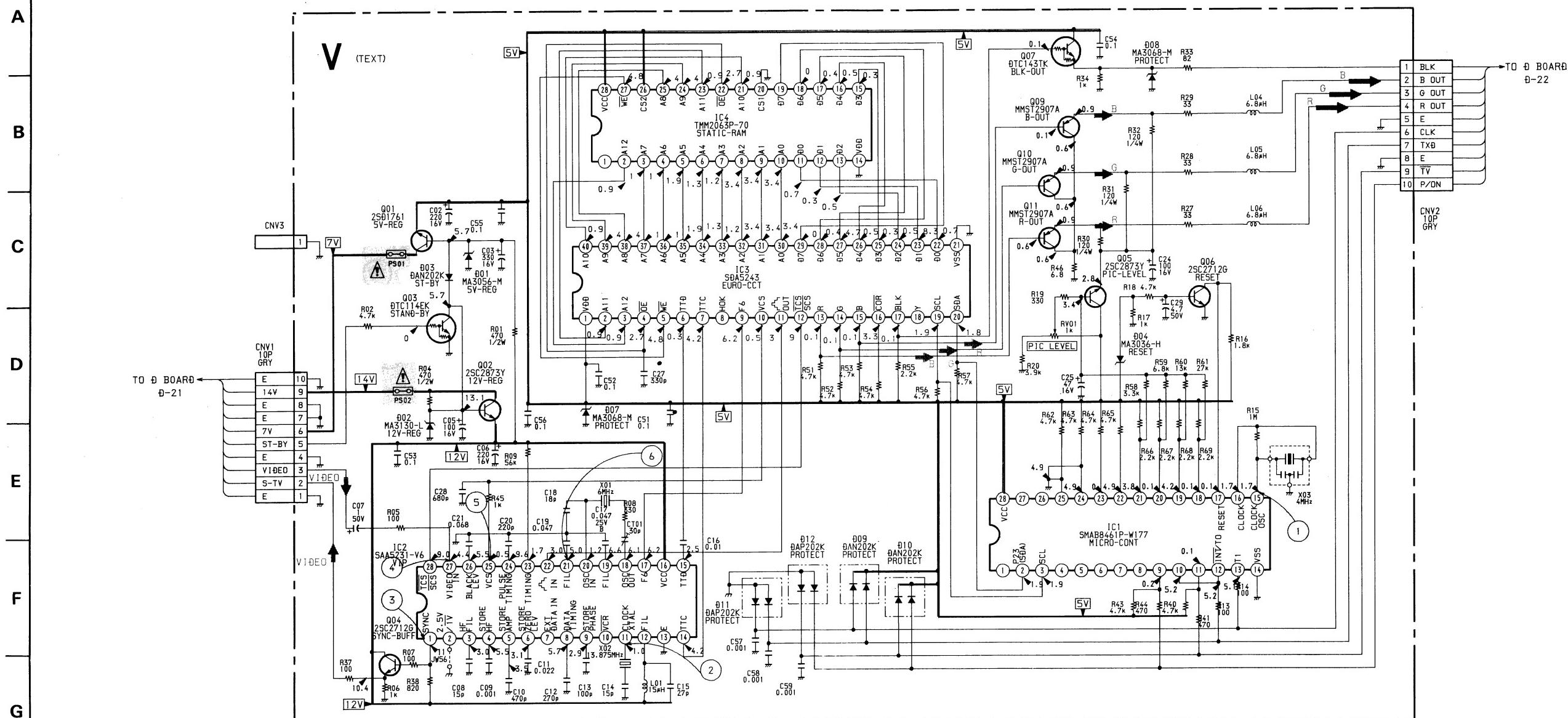
V

[TEXT]

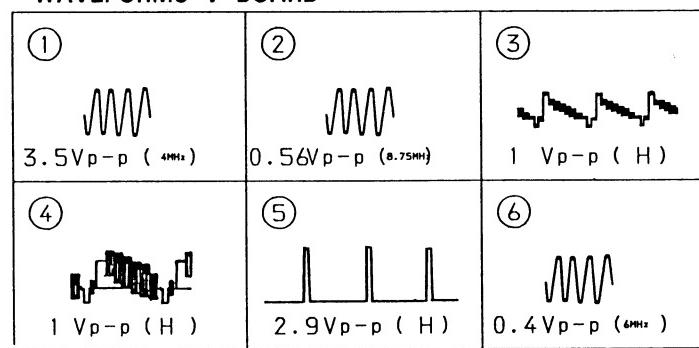
- V Board -



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



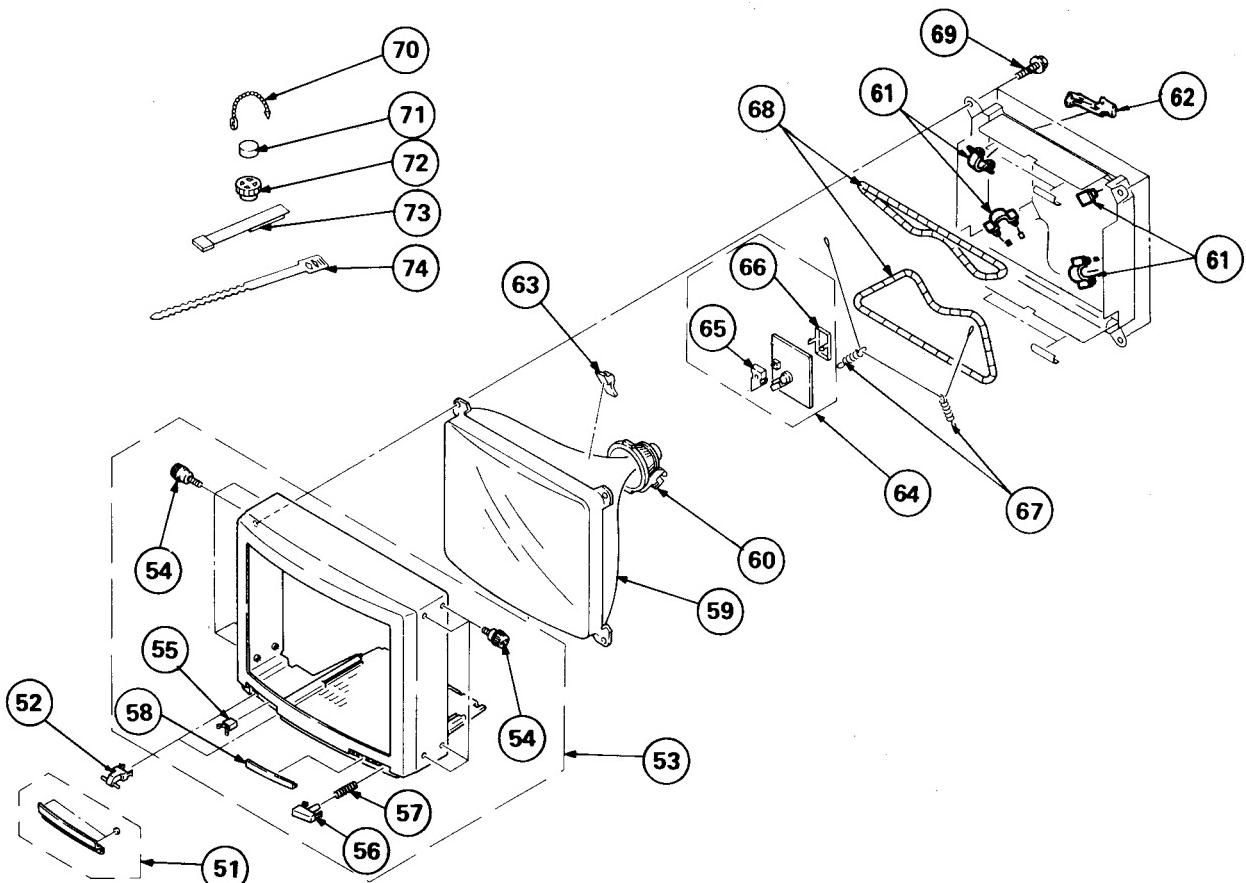
## • WAVEFORMS V BOARD





## 6-2. PICTURE TUBE

● : BVTP3 X 12 7-685-648-79

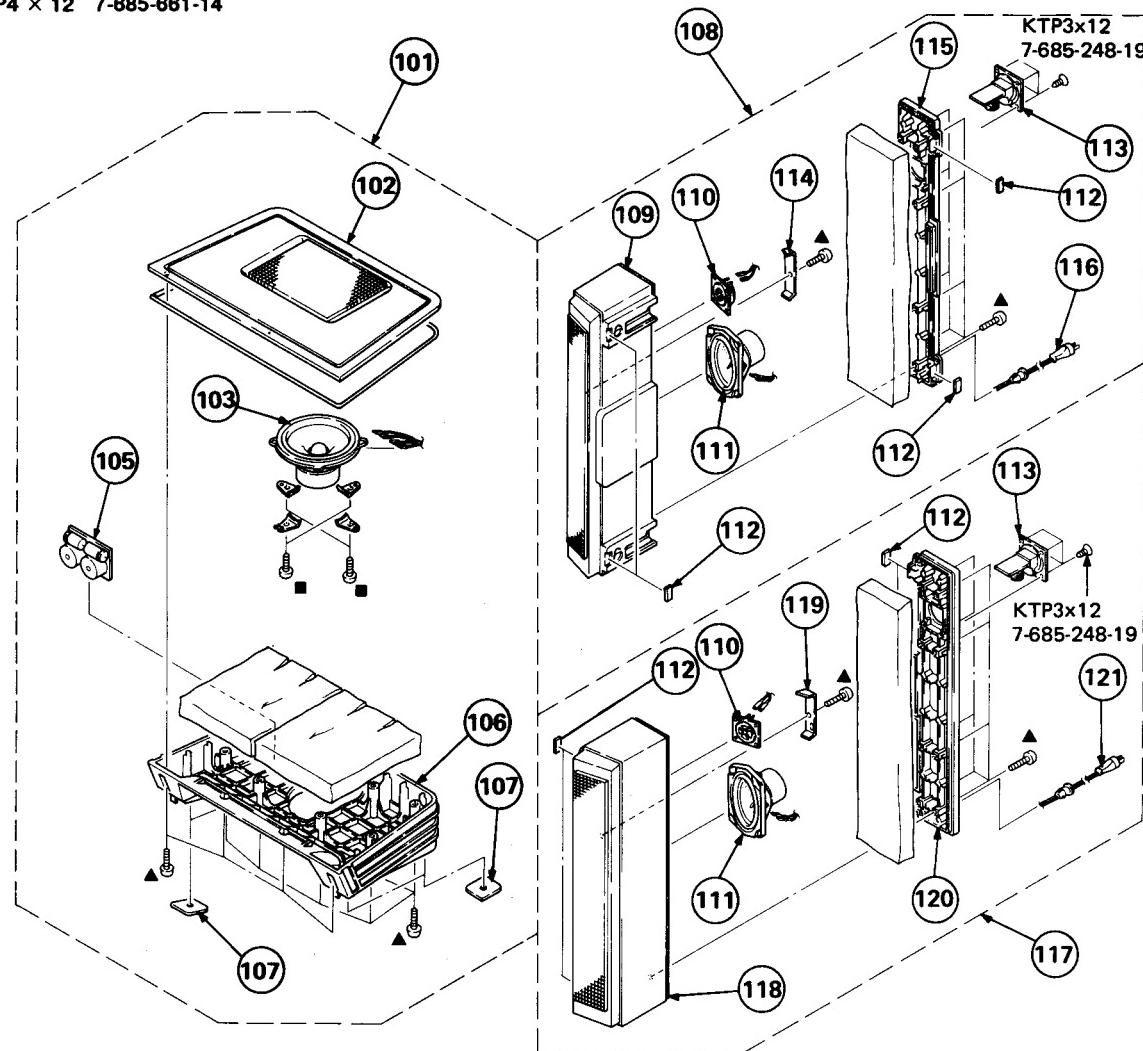


The components identified by shading and mark ▲ are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	X-4201-006-2	DOOR ASSY, CONTROL		64	*A-1638-002-A	C BOARD, COMPLETE	65,66
52	3-703-035-11	SHAFT, LID		65	*4-379-167-01	COVER (MAIN), CV	
53	X-4201-005-1	CABINET ASSY (WITH BEZEL ASSY)	54-58	66	*4-379-160-01	COVER (REAR LID), CV	
54	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL		67	4-303-774-99	SPRING	
55	4-386-710-01	CATCHER, PUSH		68	▲.1-426-372-11	COIL, DEMAGNETIZATION	
56	4-200-013-01	BUTTON, POWER		69	4-373-263-01	SCREW (M), PT	
57	4-329-112-21	SPRING		70	4-308-870-00	CLIP, LEAD WIRE	
58	4-200-017-12	WINDOW, ORNAMENTAL		71	1-452-032-00	MAGNET, DISK; 10MM Ø	
59	▲.8-733-224-05	PICTURE TIBE (A59JWC60X)		72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
60	▲.1-451-311-31	DEFLECTION YOKE (Y25FXA)		73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
61	4-385-916-01	HOLDER (D)		74	3-701-007-00	BAND, BINDING	
62	4-387-216-01	HOLDER LEAD					
63	3-703-961-01	SPACER, DY					

### 6-3. SPEAKER(L, R, WOOFER)

▲ : BTP4 × 16 7-685-663-79  
■ : BTP4 × 12 7-685-661-14



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	*A-1678-001-A	BOX ASSY, WOOFER		102-107	112	4-200-006-01	CUSHION, FOOT
102	X-4200-004-2	BOARD ASSY, BAFFLE			113	1-236-510-21	NETWORK, DIVIDING
103	1-544-192-11	SPEAKER			114	*4-200-003-02	BRACKET (L), SPEAKER
105	1-236-549-11	NETWORK, DIVIDING			115	4-201-007-01	PANEL (L), REAR
106	4-200-027-01	BOX, WOOFER			116	1-575-025-11	CORD, SPEAKER (WITH PLUG)
107	4-200-009-01	CUSHION, FOOT		109-116	117	*A-1678-010-A	BOX ASSY (RIGHT), SPEAKER 110-113, 118-121
108	*A-1678-012-A	BOX ASSY (LEFT), SPEAKER			118	X-4201-004-1	BOX ASSY (R), SIDE
109	X-4201-003-1	BOX ASSY (L), SIDE			119	*4-200-004-02	BRACKET (R), SPEAKER
110	1-544-203-11	SPEAKER			120	4-201-006-01	PANEL (R), REAR
111	J-544-204-11	SPEAKER			121	1-575-024-11	CORD, SPEAKER (WITH PLUG)

## **SECTION 7**

### **ELECTRICAL PARTS LIST**

**NOTE :**

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

## RESISTORS

- All resistors are in ohms
  - F : nonflammable

RS COILS

- MF :  $\mu F$ , PF :  $\mu\mu F$
  - MMH :  $mH$ , UH :  $\mu H$

Note: In this parts list, the mounting diagram is for a different product.  
Therefore, an excess of parts is listed.

**V B**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
JW6	1-216-295-00	METAL GLAZE	0 5% 1/10W	R63	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JW7	1-216-295-00	METAL GLAZE	0 5% 1/10W	R64	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JW8	1-216-295-00	METAL GLAZE	0 5% 1/10W	R65	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JW9	1-216-295-00	METAL GLAZE	0 5% 1/10W	R66	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
JW10	1-216-295-00	METAL GLAZE	0 5% 1/10W	R67	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
JW11	1-216-295-00	METAL GLAZE	0 5% 1/10W	R68	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
JW12	1-216-295-00	METAL GLAZE	0 5% 1/10W	R69	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
JW13	1-216-295-00	METAL GLAZE	0 5% 1/10W				<VARIABLE RESISTOR>
JW14	1-216-295-00	METAL GLAZE	0 5% 1/10W				
JW15	1-216-295-00	METAL GLAZE	0 5% 1/10W				
JW16	1-216-295-00	METAL GLAZE	0 5% 1/10W				
JW17	1-216-295-00	METAL GLAZE	0 5% 1/10W				
JW18	1-216-295-00	METAL GLAZE	0 5% 1/10W				
JW19	1-216-295-00	METAL GLAZE	0 5% 1/10W				
JW20	1-216-295-00	METAL GLAZE	0 5% 1/10W				<CRYSTAL>
JW21	1-216-295-00	METAL GLAZE	0 5% 1/10W	X01	1-567-162-21	OSCILLATOR, CRYSTAL	
JW22	1-216-295-00	METAL GLAZE	0 5% 1/10W	X02	1-567-495-21	OSCILLATOR, CRYSTAL	
JW23	1-216-295-00	METAL GLAZE	0 5% 1/10W	X03	1-577-082-11	VIBRATOR, CERAMIC	
JW24	1-216-295-00	METAL GLAZE	0 5% 1/10W				*****
JW25	1-216-295-00	METAL GLAZE	0 5% 1/10W				
R01	1-218-326-11	METAL GLAZE	470 5% 1/2W		*A-1621-001-A	B BOARD, COMPLETE	
R02	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W			*****	
R04	1-218-326-11	METAL GLAZE	470 5% 1/2W				
R05	1-216-025-00	METAL GLAZE	100 5% 1/10W		*1-565-393-11	CONNECTOR, BOARD TO BOARD	
R06	1-216-049-00	METAL GLAZE	1K 5% 1/10W		*1-568-878-51	PIN, CONNECTOR 3P	
R07	1-216-025-00	METAL GLAZE	100 5% 1/10W		*1-568-881-51	PIN, CONNECTOR 6P	
R08	1-216-037-00	METAL GLAZE	330 5% 1/10W		*1-568-881-61	PIN, CONNECTOR 6P	
R09	1-216-091-00	METAL GLAZE	56K 5% 1/10W				
R13	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R14	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R15	1-216-121-00	METAL GLAZE	1M 5% 1/10W	C301	1-106-228-00	MYLAR	0.22MF 10% 100V
R16	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	C302	1-106-228-00	MYLAR	0.22MF 10% 100V
R17	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C303	1-124-122-11	ELECT	100MF 20% 50V
R18	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C304	1-106-228-00	MYLAR	0.22MF 10% 100V
R19	1-216-037-00	METAL GLAZE	330 5% 1/10W	C305	1-124-119-00	ELECT	330MF 20% 16V
R20	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	C306	1-124-902-00	ELECT	0.47MF 20% 50V
R27	1-216-013-00	METAL GLAZE	33 5% 1/10W	C307	1-124-902-00	ELECT	0.47MF 20% 50V
R28	1-216-013-00	METAL GLAZE	33 5% 1/10W	C308	1-124-902-00	ELECT	0.47MF 20% 50V
R29	1-216-013-00	METAL GLAZE	33 5% 1/10W	C309	1-124-902-00	ELECT	0.47MF 20% 50V
R30	1-218-325-11	METAL GLAZE	120 5% 1/4W	C310	1-106-220-00	MYLAR	0.1MF 10% 100V
R31	1-218-325-11	METAL GLAZE	120 5% 1/4W	C311	1-106-220-00	MYLAR	0.1MF 10% 100V
R32	1-218-325-11	METAL GLAZE	120 5% 1/4W	C312	1-124-902-00	ELECT	0.47MF 20% 50V
R33	1-216-023-00	METAL GLAZE	82 5% 1/10W	C313	1-124-902-00	ELECT	0.47MF 20% 50V
R34	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C314	1-124-902-00	ELECT	0.47MF 20% 50V
R37	1-216-025-00	METAL GLAZE	100 5% 1/10W	C315	1-124-791-11	ELECT	1MF 20% 50V
R38	1-216-047-00	METAL GLAZE	820 5% 1/10W	C316	1-163-038-00	CERAMIC CHIP	0.1MF 25V
R40	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C317	1-124-910-11	ELECT	47MF 20% 50V
R41	1-216-041-00	METAL GLAZE	470 5% 1/10W	C318	1-163-038-00	CERAMIC CHIP	0.1MF 25V
R43	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C320	1-163-121-00	CERAMIC CHIP	150PF 5% 50V
R44	1-216-041-00	METAL GLAZE	470 5% 1/10W	C322	1-163-121-00	CERAMIC CHIP	150PF 5% 50V
R45	1-216-049-00	METAL GLAZE	1K 5% 1/10W	C323	1-102-947-00	CERAMIC	10PF 0.5PF 50V
R46	1-216-311-00	METAL GLAZE	6.8 5% 1/10W	C327	1-164-232-11	CERAMIC CHIP	0.01MF 50V
R51	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C330	1-163-113-00	CERAMIC CHIP	68PF 5% 50V
R52	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C331	1-163-077-00	CERAMIC CHIP	0.1MF 50V
R53	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C332	1-126-103-11	ELECT	470MF 20% 16V
R54	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C333	1-106-375-12	MYLAR	0.022MF 10% 250V
R55	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	C334	1-163-097-00	CERAMIC CHIP	15PF 5% 50V
R56	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C335	1-163-097-00	CERAMIC CHIP	15PF 5% 50V
R57	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C336	1-102-816-00	CERAMIC	120PF 5% 50V
R58	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	C337	1-164-232-11	CERAMIC CHIP	0.01MF 50V
R59	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	C338	1-106-220-00	MYLAR	0.1MF 10% 100V
R60	1-216-076-00	METAL GLAZE	13K 5% 1/10W	C339	1-106-220-00	MYLAR	0.1MF 10% 100V
R61	1-216-083-00	METAL GLAZE	27K 5% 1/10W	C341	1-163-125-00	CERAMIC CHIP	220PF 5% 50V
R62	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	C343	1-106-383-00	MYLAR	0.047MF 10% 100V
				C344	1-130-783-00	MYLAR	0.33MF 10% 100V

**B**

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK					
<DELAY LINE>												
C345	1-163-123-00	CERAMIC CHIP 180PF	5%	50V	DL332	1-236-062-11	MODULE, Y DELAY LINE					
C346	1-163-033-00	CERAMIC CHIP 0.022MF		50V	DL401	1-415-613-11	DELAY LINE, Y					
C347	1-124-791-11	ELECT 1MF	20%	50V								
C348	1-124-791-11	ELECT 1MF	20%	50V								
C349	1-164-232-11	CERAMIC CHIP 0.01MF		50V								
<IC>												
C350	1-164-232-11	CERAMIC CHIP 0.01MF		50V	IC301	8-759-979-85	IC TDA4580-V4					
C351	1-106-375-12	MYLAR 0.022MF	10%	250V	IC302	8-759-980-60	IC TDA442-N3					
C352	1-106-375-12	MYLAR 0.022MF	10%	250V	IC303	8-759-240-53	IC TC4053BP					
C353	1-106-375-12	MYLAR 0.022MF		250V	IC331	8-759-990-29	IC TDA4650					
C354	1-124-910-11	ELECT 47MF	20%	50V	IC332	8-759-990-30	IC TDA4660					
C357	1-163-117-00	CERAMIC CHIP 100PF	5%	50V								
C358	1-124-917-11	ELECT 33MF	20%	50V	IC1301	1-235-534-21	CONTROL MODULE, PICTURE					
C359	1-163-103-00	CERAMIC CHIP 27PF	5%	50V								
C360	1-164-232-11	CERAMIC CHIP 0.01MF		50V								
C364	1-163-105-00	CERAMIC CHIP 33PF	5%	50V								
C365	1-124-910-11	ELECT 47MF	20%	50V								
C366	1-126-103-11	ELECT 470MF	20%	16V	L301	1-410-868-21	INDUCTOR	4.7UH				
C367	1-164-232-11	CERAMIC CHIP 0.01MF		50V	L302	1-410-868-21	INDUCTOR	4.7UH				
C381	1-124-902-00	ELECT 0.47MF	20%	50V	L331	1-404-554-11	COILL					
C382	1-124-927-11	ELECT 4.7MF	20%	50V	L336	1-404-554-11	COILL					
C384	1-124-910-11	ELECT 47MF	20%	50V	L338	1-408-409-00	INDUCTOR	10UH				
C385	1-124-927-11	ELECT 4.7MF	20%	50V	L1301	1-408-425-00	INDUCTOR	220UH				
C386	1-124-927-11	ELECT 4.7MF	20%	50V	L1302	1-408-419-00	INDUCTOR	68UH				
C387	1-124-791-11	ELECT 1MF	20%	50V	<TRANSISTOR>							
C388	1-106-220-00	MYLAR 0.1MF	10%	100V	Q303	8-729-271-22	TRANSISTOR 2SC2712-G					
C401	1-101-361-00	CERAMIC 150PF	5%	50V	Q305	8-729-901-00	TRANSISTOR DTC124EK					
C402	1-163-197-00	CERAMIC CHIP 470PF	5%	50V	Q306	8-729-271-22	TRANSISTOR 2SC2712-G					
C403	1-164-232-11	CERAMIC CHIP 0.01MF		50V	Q311	8-729-271-22	TRANSISTOR 2SC2712-G					
C1311	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	Q312	8-729-271-22	TRANSISTOR 2SC2712-G					
C1312	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	Q313	8-729-271-22	TRANSISTOR 2SC2712-G					
C1313	1-102-953-00	CERAMIC 18PF	5%	50V	Q316	8-729-271-22	TRANSISTOR 2SC2712-G					
<TRIMMER>												
CT331	1-141-181-11	CAP, TRIMMER			Q330	8-729-216-22	TRANSISTOR 2SA1162					
CT332	1-141-181-11	CAP, TRIMMER			Q331	8-729-901-00	TRANSISTOR DTC124EK					
<DIODE>												
D301	8-719-911-19	DIODE 1SS119			Q332	8-729-216-22	TRANSISTOR 2SA1162					
D302	8-719-911-19	DIODE 1SS119			Q333	8-729-216-22	TRANSISTOR 2SA1162					
D303	8-719-911-19	DIODE 1SS119			Q334	8-729-271-22	TRANSISTOR 2SC2712-G					
D304	8-719-911-19	DIODE 1SS119			Q335	8-729-271-22	TRANSISTOR 2SC2712-G					
D305	8-719-911-19	DIODE 1SS119			Q336	8-729-900-36	TRANSISTOR DTC124ES					
D307	8-719-110-23	DIODE RD11ES-B3			Q381	8-729-901-00	TRANSISTOR DTC124EK					
D308	8-719-911-19	DIODE ISS119			Q382	8-729-271-22	TRANSISTOR 2SC2712-G					
D309	8-719-911-19	DIODE ISS119			Q1301	8-729-901-00	TRANSISTOR DTC124EK					
D310	8-719-110-23	DIODE RD11ES-B3			Q1305	8-729-271-22	TRANSISTOR 2SC2712-G					
D311	8-719-110-23	DIODE RD11ES-B3			Q1306	8-729-271-22	TRANSISTOR 2SC2712-G					
D312	8-719-110-23	DIODE RD11ES-B3			<RESISTOR>							
D313	8-719-911-19	DIODE ISS119			R301	1-216-033-00	METAL GLAZE	220	5%	1/10W		
D314	8-719-911-19	DIODE ISS119			R302	1-216-033-00	METAL GLAZE	220	5%	1/10W		
D315	8-719-911-19	DIODE ISS119			R303	1-216-033-00	METAL GLAZE	220	5%	1/10W		
D316	8-719-911-19	DIODE ISS119			R304	1-216-033-00	METAL GLAZE	220	5%	1/10W		
D317	8-719-911-19	DIODE 1SS119			R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		
D318	8-719-911-19	DIODE 1SS119			R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W		
D319	8-719-911-19	DIODE 1SS119			R308	1-216-184-00	METAL GLAZE	270	5%	1/8W		
D320	8-719-911-19	DIODE 1SS119			R309	1-216-025-00	METAL GLAZE	100	5%	1/10W		
D331	8-719-911-19	DIODE 1SS119			R310	1-216-025-00	METAL GLAZE	100	5%	1/10W		
D332	8-719-911-19	DIODE 1SS119			R311	1-216-025-00	METAL GLAZE	100	5%	1/10W		
D333	8-719-911-19	DIODE 1SS119			R312	1-216-033-00	METAL GLAZE	220	5%	1/10W		
D350	8-719-109-90	DIODE RD5.6ES-B3			R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W		
					R314	1-216-182-00	METAL GLAZE	220	5%	1/8W		
					R315	1-216-031-00	METAL GLAZE	180	5%	1/10W		
					R316	1-216-031-00	METAL GLAZE	180	5%	1/10W		
					R317	1-216-031-00	METAL GLAZE	180	5%	1/10W		
					R318	1-216-073-00	METAL GLAZE	10K	5%	1/10W		
					R319	1-216-033-00	METAL GLAZE	220	5%	1/10W		

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

B F1

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**F2 A C**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*1-631-223-11	F2 BOARD	*****		R111	1-249-423-11	CARBON	3.3K 5% 1/4W
*1-566-664-11	PIN, CONNECTOR 4P			R116	1-249-407-11	CARBON	150 5% 1/4W
				R118	1-249-435-11	CARBON	33K 5% 1/4W
				R128	1-249-406-11	CARBON	120 5% 1/4W
				R129	1-249-421-11	CARBON	2.2K 5% 1/4W
				R130	1-249-421-11	CARBON	2.2K 5% 1/4W
S1701A	I-571-433-11	SWITCH, PUSH (AC POWER)		R157	1-249-417-11	CARBON	1K 5% 1/4W
				R158	1-249-409-11	CARBON	220 5% 1/4W
				R159	1-249-409-11	CARBON	220 5% 1/4W
				R161	1-249-437-11	CARBON	47K 5% 1/4W
*A-1632-001-A	A BOARD, COMPLETE	*****		R162	1-249-440-11	CARBON	82K 5% 1/4W
*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)			R163	1-249-440-11	CARBON	82K 5% 1/4W
*1-564-881-11	PLUG, CONNECTOR 4P			R164	1-249-430-11	CARBON	12K 5% 1/4W
*1-564-886-11	PLUG, CONNECTOR 9P			R165	1-249-430-11	CARBON	12K 5% 1/4W
*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P			R167	1-249-422-11	CARBON	2.7K 5% 1/4W
*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P			R168	1-249-437-11	CARBON	47K 5% 1/4W
				R169	1-249-422-11	CARBON	2.7K 5% 1/4W
				R181	1-249-417-11	CARBON	1K 5% 1/4W
				R182	1-249-425-11	CARBON	4.7K 5% 1/4W
				R193	1-249-429-11	CARBON	10K 5% 1/4W
							<IF BLOCK>
C101	1-126-233-11	ELECT	22MF	20%	50V		
C102	1-126-103-11	ELECT	470MF	20%	16V		
C104	1-124-910-11	ELECT	47MF	20%	50V		
C106	1-126-233-11	ELECT	22MF	20%	50V		
C108	1-136-165-00	FILM	0.1MF	5%	50V		
							<IF BLOCK>
C109	1-102-824-00	CERAMIC	470PF	5%	50V		
C111	1-124-925-11	ELECT	2.2MF	20%	50V		
C115	1-124-925-11	ELECT	2.2MF	20%	50V		
C127	1-124-122-11	ELECT	100MF	20%	50V		
C128	1-124-910-11	ELECT	47MF	20%	50V		
							<TUNER>
C129	1-124-910-11	ELECT	47MF	20%	50V		
C138	1-136-165-00	FILM	0.1MF	5%	50V		
C171	1-102-114-00	CERAMIC	470PF	10%	50V		
C172	1-102-114-00	CERAMIC	470PF	10%	50V		
C177	1-102-074-00	CERAMIC	0.001MF	10%	50V		
C181	1-101-004-00	CERAMIC	0.01MF		50V		
							<IC>
IC103	8-759-979-62	IC PCF8574					
							<COIL>
L100	1-410-116-11	INDUCTOR	0.56MH				
L101	1-408-225-00	INDUCTOR	3.3UH				
L102	1-408-413-00	INDUCTOR	22UH				
L107	1-408-397-00	INDUCTOR	1UH				
							<CAPACITOR>
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q125	8-729-900-89	TRANSISTOR DTC144ES					
Q126	8-729-900-65	TRANSISTOR DTA144ES					
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE					
							<RESISTOR>
R101	1-249-405-11	CARBON	100	5%	1/4W		
R105	1-249-432-11	CARBON	18K	5%	1/4W		
R107	1-249-433-11	CARBON	22K	5%	1/4W		
R108	1-249-432-11	CARBON	18K	5%	1/4W		
R110	1-249-429-11	CARBON	10K	5%	1/4W		

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**C D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<DIODE>											
D701	8-719-110-14	DIODE RD9.1ES-B3		R733	1-249-415-11	CARBON	680 5% 1/4W				
D702	8-719-911-19	DIODE ISS119		R734	1-249-405-11	CARBON	100 5% 1/4W				
D703	8-719-911-19	DIODE ISS119		R735	1-215-493-00	METAL	1M 1% 1/6W				
D704	8-719-911-19	DIODE ISS119		R736	1-216-486-00	METAL OXIDE	8.2K 5% 3W F				
D705	8-719-911-19	DIODE ISS119		R737	1-215-491-00	METAL	820K 1% 1/6W				
D706	8-719-911-19	DIODE ISS119		R739	1-249-417-11	CARBON	1K 5% 1/4W				
D707	8-719-911-19	DIODE ISS119		<VARIABLE RESISTOR>							
D708	8-719-911-19	DIODE ISS119		RV701	1-230-641-11	RES, ADJ, METAL GLAZE	2.2M				
D709	8-719-911-19	DIODE ISS119		RV702	1-230-619-11	RES, ADJ, METAL GLAZE	110M				
D710	8-719-911-19	DIODE ISS119		RV703	1-237-749-11	RES, ADJ, CARBON	2200				
D711	8-719-300-33	DIODE RU-3AM		RV704	1-237-749-11	RES, ADJ, CARBON	2200				
D713	8-719-911-19	DIODE ISS119		*****							
<JACK>											
J701	1-526-798-51	SOCKET, PICTURE TUBE		*A-1642-002-A	D BOARD, COMPLETE						
<COIL>											
L704	1-410-878-21	INDUCTOR	33UH	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P						
<TRANSISTOR>											
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P						
Q703	8-729-326-11	TRANSISTOR 2SC2611		*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)						
Q704	8-729-200-17	TRANSISTOR 2SA1091		*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P						
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-564-505-11	PLUG, CONNECTOR 2P						
Q706	8-729-326-11	TRANSISTOR 2SC2611		*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR						
Q707	8-729-200-17	TRANSISTOR 2SA1091		*1-565-395-11	PIN, CONNECTOR 3P						
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE		*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)						
Q709	8-729-326-11	TRANSISTOR 2SC2611		*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P						
Q710	8-729-200-17	TRANSISTOR 2SA1091		*1-568-878-51	PIN, CONNECTOR 3P						
<RESISTOR>											
R704	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	<CAPACITOR>							
R705	1-202-824-00	SOLID	3.3K 10% 1/2W	C002	1-102-074-00	CERAMIC	0.001MF 10% 50V				
R706	1-249-409-11	CARBON	220 5% 1/4W	C003	1-123-875-11	ELECT	10MF 20% 50V				
R707	1-249-412-11	CARBON	390 5% 1/4W	C004	1-124-120-11	ELECT	220MF 20% 16V				
R708	1-249-401-11	CARBON	47 5% 1/4W	C005	1-124-791-11	ELECT	1MF 20% 50V				
R709	1-202-844-00	SOLID	330K 10% 1/2W	C006	1-102-978-00	CERAMIC	220PF 5% 50V				
R710	1-215-465-00	METAL	68K 1% 1/6W	C007	1-102-978-00	CERAMIC	220PF 5% 50V				
R712	1-249-417-11	CARBON	1K 5% 1/4W	C008	1-101-880-00	CERAMIC	47PF 5% 50V				
R713	1-215-471-00	METAL	120K 1% 1/6W	C009	1-101-880-00	CERAMIC	47PF 5% 50V				
R714	1-216-486-00	METAL OXIDE	8.2K 5% 3W F	C010	1-124-120-11	ELECT	220MF 20% 16V				
R715	1-202-824-00	SOLID	3.3K 10% 1/2W	C011	1-101-004-00	CERAMIC	0.01MF 10% 50V				
R716	1-249-409-11	CARBON	220 5% 1/4W	C012	1-123-875-11	ELECT	10MF 20% 50V				
R717	1-249-415-11	CARBON	680 5% 1/4W	C013	1-106-220-00	MYLAR	0.1MF 10% 100V				
R718	1-202-814-11	SOLID	33K 10% 1/2W	C014	1-106-220-00	MYLAR	0.1MF 10% 100V				
R719	1-249-401-11	CARBON	47 5% 1/4W	C015	1-124-902-00	ELECT	0.47MF 20% 50V				
R720	1-249-423-11	CARBON	3.3K 5% 1/4W	C016	1-101-361-00	CERAMIC	150PF 5% 50V				
R721	1-202-842-11	SOLID	220K 10% 1/2W	C017	1-106-220-00	MYLAR	0.1MF 10% 100V				
R722	1-202-848-00	SOLID	680K 10% 1/2W	C018	1-102-980-00	CERAMIC	270PF 5% 50V				
R723	1-249-417-11	CARBON	1K 5% 1/4W	C019	1-106-383-00	MYLAR	0.047MF 10% 100V				
R724	1-202-846-00	SOLID	470K 10% 1/2W	C020	1-124-917-11	ELECT	33MF 20% 50V				
R725	1-202-838-00	SOLID	100K 10% 1/2W	C021	1-102-973-00	CERAMIC	100PF 5% 50V				
R726	1-202-824-00	SOLID	3.3K 10% 1/2W	C022	1-101-004-00	CERAMIC	0.01MF 5% 50V				
R727	1-249-409-11	CARBON	220 5% 1/4W	C023	1-102-973-00	CERAMIC	100PF 5% 50V				
R728	1-216-347-11	METAL OXIDE	0.68 5% 1W F	C024	1-102-973-00	CERAMIC	100PF 5% 50V				
R729	1-249-416-11	CARBON	820 5% 1/4W	C025	1-102-973-00	CERAMIC	100PF 5% 50V				
R730	1-249-401-11	CARBON	47 5% 1/4W	C027	1-124-910-11	ELECT	47MF 20% 50V				
R731	1-249-423-11	CARBON	3.3K 5% 1/4W								
R732	1-249-415-11	CARBON	680 5% 1/4W								

D

The components identified by shading and mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
C251	1-124-499-11	ELECT	1MF	20%	50V	C620	1-136-173-00	FILM	0.47MF	5%	50V
C252	1-126-233-11	ELECT	22MF	20%	50V	C621	1-124-347-00	ELECT	100MF	20%	160V
C253	1-102-074-00	CERAMIC	0.001MF	10%	50V	C622	1-124-556-11	ELECT	2200MF	20%	16V
C254	1-106-220-00	MYLAR	0.1MF	10%	100V	C623	1-124-910-11	ELECT	47MF	20%	50V
C255	1-124-636-00	ELECT	3300MF	20%	25V	C624	1-124-122-11	ELECT	100MF	20%	50V
C261	1-124-791-11	ELECT	1MF	20%	50V	C625	1-124-360-00	ELECT	1000MF	20%	16V
C262	1-126-233-11	ELECT	22MF	20%	50V	C626	1-123-875-11	ELECT	10MF	20%	50V
C263	1-102-074-00	CERAMIC	0.001MF	10%	50V	C627	1-108-614-11	MYLAR	0.001MF	10%	100V
C264	1-106-220-00	MYLAR	0.1MF	10%	100V	C628	1-162-116-00	CERAMIC	680PF	10%	2KV
C265	1-124-564-11	ELECT	4700MF	20%	25V	C631	1-124-927-11	ELECT	4.7MF	20%	50V
C501	1-124-927-11	ELECT	4.7MF	20%	50V	C632	1-102-973-00	CERAMIC	100PF	5%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V	C633	1-102-973-00	CERAMIC	100PF	5%	50V
C503	1-106-371-00	MYLAR	0.015MF	10%	400V	C801	1-126-105-11	ELECT	1000MF	20%	35V
C504	1-101-361-00	CERAMIC	150PF	5%	50V	C802	1-102-030-00	CERAMIC	330PF	10%	500V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V	C804	1-123-948-00	ELECT	22MF	20%	250V
C506	1-106-375-12	MYLAR	0.022MF	10%	250V	C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C507	1-130-783-00	MYLAR	0.33MF	10%	100V	C806	1-106-220-00	MYLAR	0.1MF	10%	100V
C508	1-106-375-12	MYLAR	0.022MF	10%	250V	C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C509	1-106-220-00	MYLAR	0.1MF	10%	100V	C810	1-123-024-21	ELECT	33MF		160V
C510	1-161-959-00	CERAMIC	22PF	10%	500V	C811	1-136-113-00	FILM	2MF	5%	200V
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V	C812	1-124-634-11	ELECT	1MF	20%	250V
C512	1-106-220-00	MYLAR	0.1MF	10%	100V	C813	1-102-212-00	CERAMIC	820PF	10%	500V
C513	1-102-978-00	CERAMIC	220PF	5%	50V	C814	$\Delta$ 1-161-731-11	CERAMIC	0.001MF	10%	2KV
C514	1-106-228-00	MYLAR	0.22MF	10%	100V	C815	1-136-111-00	FILM	1MF	5%	200V
C515	1-124-791-11	ELECT	1MF	20%	50V	C817	1-136-565-11	FILM	0.015MF	3%	1.4KV
C516	1-108-614-11	MYLAR	0.001MF	10%	100V	C818	1-136-759-11	FILM	0.039MF	10%	630V
C517	1-124-252-00	ELECT	0.33MF	20%	50V	C819	$\Delta$ 1-161-731-11	CERAMIC	0.001MF	10%	2KV
C518	1-124-902-00	ELECT	0.47MF	20%	50V	C820	1-106-218-00	MYLAR	0.0082MF	10%	400V
C519	1-136-173-00	FILM	0.47MF	5%	50V	C821	$\Delta$ 1-162-116-51	CERAMIC	680PF	10%	2KV
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C822	1-102-114-00	CERAMIC	470PF	10%	50V
C521	1-106-220-00	MYLAR	0.1MF	10%	100V	C823	1-106-359-00	MYLAR	0.0047MF	10%	400V
C522	1-124-122-11	ELECT	100MF	20%	50V	C824	1-102-212-00	CERAMIC	820PF	10%	500V
C523	1-108-614-11	MYLAR	0.001MF	10%	100V	C825	1-106-375-12	MYLAR	0.022MF	10%	250V
C525	1-102-973-00	CERAMIC	100PF	5%	50V						
C526	1-102-951-00	CERAMIC	15PF	5%	50V						
C527	1-106-220-00	MYLAR	0.1MF	10%	100V						
C531	1-124-190-00	ELECT	680MF	10%	25V	CF001	1-577-364-11	VIBRATOR, CERAMIC			
C532	1-124-122-11	ELECT	100MF	20%	50V	CF501	1-567-888-11	OSCILLATOR, CERAMIC			
C533	1-106-216-00	MYLAR	0.068MF	10%	100V						
C534	1-124-120-11	ELECT	220MF	20%	16V						
C536	1-131-365-00	TANTALUM	10MF	10%	16V						
C537	1-124-791-11	ELECT	1MF	20%	50V	D001	8-719-911-19	DIODE ISS119			
C538	1-108-614-11	MYLAR	0.001MF	10%	100V	D002	8-719-109-98	DIODE RD6.6ES-B3			
C539	1-102-820-00	CERAMIC	330PF	5%	50V	D003	8-719-911-19	DIODE ISS119			
C592	1-124-122-11	ELECT	100MF	20%	50V	D004	8-719-911-19	DIODE ISS119			
C593	1-102-820-00	CERAMIC	330PF	5%	50V	D005	8-719-109-89	DIODE RD5.6ES-B2			
C601	1-162-599-12	CERAMIC	0.0047MF		250V	D006	8-719-110-76	DIODE RD33ES-B1			
C602	1-162-599-12	CERAMIC	0.0047MF		250V	D007	8-719-911-19	DIODE ISS119			
C603	1-162-599-12	CERAMIC	0.0047MF		250V	D009	8-719-109-89	DIODE RD5.6ES-B2			
C604	1-125-318-00	ELECT (BLOCK)	220MF	20%	400V	D010	8-719-109-93	DIODE RD6.2ES-B2			
C605	1-124-510-11	ELECT	220MF	20%	35V	D011	8-719-109-93	DIODE RD6.2ES-B2			
C606	1-102-114-00	CERAMIC	470PF	10%	50V	D271	8-719-110-36	DIODE RD13ES-B2			
C607	1-130-834-00	MYLAR	1MF	10%	63V	D272	8-719-911-19	DIODE ISS119			
C608	1-124-927-11	ELECT	4.7MF	20%	50V	D501	8-719-911-19	DIODE ISS119			
C611	1-124-910-11	ELECT	47MF	20%	50V	D504	8-719-911-55	DIODE U05G			
C612	1-108-614-11	MYLAR	0.001MF	10%	100V	D506	8-719-016-42	DIODE MC932			
C613	1-136-539-11	FILM	0.0022MF	3%	2KV	D508	8-719-911-19	DIODE ISS119			
C614	1-102-030-00	CERAMIC	330PF	10%	500V	D509	8-719-911-19	DIODE ISS119			
C615	1-124-557-11	ELECT	1000MF	20%	25V	D511	8-719-911-55	DIODE U05G			
C616	1-102-030-00	CERAMIC	330PF	10%	500V	D512	8-719-911-55	DIODE U05G			
C617	1-124-122-11	ELECT	100MF	20%	50V	D513	8-719-109-81	DIODE RD4.7ES-B2			
C618	1-162-115-00	CERAMIC	330PF	10%	2KV	D601	8-719-946-90	DIODE KBU4JL-6088			
C619	1-124-556-11	ELECT	2200MF	20%	16V	D602	8-719-300-33	DIODE RU-3AM			

The components identified by shading and mark **A** are critical for safety.

Replace only with part number specified.

**D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D603	8-719-911-55	DIODE U05G		L810	A 1-421-982-12	PMC	
D604	8-719-911-55	DIODE U05G				<IC LINK>	
D605	8-719-911-55	DIODE U05G		PS601	A 1-532-984-91	LINK, IC (ICP-N50) 2A	
D606	8-719-300-33	DIODE RU-3AM		PS602	A 1-532-984-91	LINK, IC (ICP-N50) 2A	
D607	8-719-300-33	DIODE RU-3AM				<TRANSISTOR>	
D608	8-719-300-33	DIODE RU-3AM		Q001	8-729-900-89	TRANSISTOR DTC144ES	
D609	8-719-110-76	DIODE RD33ES-B1		Q002	8-729-900-65	TRANSISTOR DTA144ES	
D610	8-719-300-59	DIODE CTU-12S		Q003	8-729-173-38	TRANSISTOR 2SA733-K	
D611	8-719-900-26	DIODE ERD29-08J		Q004	8-729-173-38	TRANSISTOR 2SA733-K	
D612	8-719-300-59	DIODE CTU-12S		Q005	8-729-900-89	TRANSISTOR DTC144ES	
D613	8-719-300-33	DIODE RU-3AM		Q006	8-729-900-89	TRANSISTOR DTC144ES	
D614	8-719-300-33	DIODE RU-3AM		Q007	8-729-900-89	TRANSISTOR DTC144ES	
D616	8-719-109-93	DIODE RD6.2ES-B2		Q008	8-729-900-89	TRANSISTOR DTC144ES	
D617	8-719-911-19	DIODE ISS119		Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D618	8-719-109-89	DIODE RD5.6ES-B2		Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D619	8-719-110-76	DIODE RD33ES-B1		Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D620	8-719-016-42	DIODE MC932		Q271	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D621	8-719-110-76	DIODE RD33ES-B1		Q502	8-729-173-38	TRANSISTOR 2SA733-K	
D622	8-719-911-19	DIODE ISS119		Q505	8-729-140-96	TRANSISTOR 2SD774-34	
D623	8-719-911-19	DIODE ISS119		Q506	8-729-140-97	TRANSISTOR 2SB734-34	
D624	8-719-911-19	DIODE ISS119		Q507	8-729-173-38	TRANSISTOR 2SA733-K	
D630	8-719-110-39	DIODE RD15ES-B1		Q598	8-729-173-38	TRANSISTOR 2SA733-K	
D801	8-719-300-33	DIODE RU-3AM		Q601	8-729-111-67	TRANSISTOR 2SB1094-L	
D802	8-719-300-33	DIODE RU-3AM		Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
D803	8-719-300-65	DIODE ES1F		Q603	8-729-111-67	TRANSISTOR 2SB1094-L	
D804	8-719-911-55	DIODE U05G		Q604	8-729-173-38	TRANSISTOR 2SA733-K	
D805	8-719-911-55	DIODE U05G		Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D806	8-719-945-80	DIODE ERC06-15S		Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D807	8-719-945-80	DIODE ERC06-15S		Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
D808	8-719-900-26	DIODE ERD29-08J		Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<IC>							
IC001	8-759-035-37	IC SDA2083-A006		Q609	8-729-320-62	TRANSISTOR 2SD789-34	
IC002	8-752-332-82	IC CXD1050A-09P		Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC003	8-759-945-58	IC RC4558P		Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
IC005	8-759-748-56	IC SDA2546		Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
IC251	8-759-988-94	IC TDA2050				<RESISTOR>	
<SPACER, INSULATING>							
IC261	8-759-988-94	IC TDA2050		R001	1-249-413-11	CARBON	470 5% 1/4W
<SPACER, INSULATING>							
IC261	8-759-988-94	IC TDA2050		R002	1-249-413-11	CARBON	470 5% 1/4W
<SPACER, INSULATING>							
IC501	8-759-970-73	IC TEA2028B		R003	1-249-417-11	CARBON	1K 5% 1/4W
IC502	8-759-944-57	IC TDA8170		R004	1-249-417-11	CARBON	1K 5% 1/4W
IC601	8-759-988-95	IC TEA2260		R005	1-249-417-11	CARBON	1K 5% 1/4W
IC604	8-759-144-84	IC UPC24M05HF				<COIL>	
IC608	8-759-982-13	IC RC7812FA		R006	1-249-429-11	CARBON	10K 5% 1/4W
<COIL>							
L001	1-408-414-00	INDUCTOR 27UH		R007	1-249-425-11	CARBON	4.7K 5% 1/4W
L501	1-408-225-00	INDUCTOR 3.3UH		R008	1-249-429-11	CARBON	10K 5% 1/4W
L601	*1-420-872-00	COIL, AIR CORE		R009	1-249-429-11	CARBON	10K 5% 1/4W
L602	1-410-396-41	FERRITE BEAD INDUCTOR		R010	1-249-413-11	CARBON	470 5% 1/4W
L603	1-410-396-41	FERRITE BEAD INDUCTOR				<INDUCTOR>	
L604	1-410-671-31	INDUCTOR 47UH		R011	1-249-425-11	CARBON	4.7K 5% 1/4W
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)		R012	1-249-417-11	CARBON	1K 5% 1/4W
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH		R013	1-249-429-11	CARBON	10K 5% 1/4W
L607	1-410-671-31	INDUCTOR 47UH		R014	1-249-428-11	CARBON	8.2K 5% 1/4W
L608	1-459-104-00	COIL, DUST CORE		R015	1-249-423-11	CARBON	3.3K 5% 1/4W
L804	1-408-239-00	INDUCTOR 4.7MMH				<COIL>	
L805	A 1-459-755-12	COIL, HORIZONTAL LINEARITY		R016	1-249-435-11	CARBON	33K 5% 1/4W
L806	1-459-111-00	COIL, DRAM CORE (CDI)		R017	1-249-436-11	CARBON	39K 5% 1/4W
L809	*1-420-872-00	COIL, AIR CORE		R018	1-249-440-11	CARBON	82K 5% 1/4W
				R019	1-249-417-11	CARBON	1K 5% 1/4W
				R020	1-249-417-11	CARBON	1K 5% 1/4W
				R021	1-249-425-11	CARBON	4.7K 5% 1/4W
				R022	1-249-425-11	CARBON	4.7K 5% 1/4W
				R023	1-249-410-11	CARBON	270 5% 1/4W

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R024	1-249-417-11	CARBON	1K 5% 1/4W	R264	1-216-357-00	METAL OXIDE	4.7 5% 1W F
R025	1-249-405-11	CARBON	100 5% 1/4W	R265	1-249-429-11	CARBON	10K 5% 1/4W
R026	1-249-417-11	CARBON	1K 5% 1/4W	R266	1-247-897-11	CARBON	560K 5% 1/4W
R027	1-249-405-11	CARBON	100 5% 1/4W	R267	1-249-431-11	CARBON	15K 5% 1/4W
R028	1-249-405-11	CARBON	100 5% 1/4W	R268	1-215-869-11	METAL OXIDE	1K 5% 1W F
R029	1-249-429-11	CARBON	10K 5% 1/4W	R269	1-249-425-11	CARBON	4.7K 5% 1/4W
R030	1-249-429-11	CARBON	10K 5% 1/4W	R271	1-249-415-11	CARBON	680 5% 1/4W
R031	1-249-433-11	CARBON	22K 5% 1/4W	R272	1-249-429-11	CARBON	10K 5% 1/4W
R032	1-249-429-11	CARBON	10K 5% 1/4W	R273	1-249-429-11	CARBON	10K 5% 1/4W
R033	1-249-429-11	CARBON	10K 5% 1/4W	R500	1-247-897-11	CARBON	560K 5% 1/4W
R034	1-249-431-11	CARBON	15K 5% 1/4W	R501	1-249-413-11	CARBON	470 5% 1/4W
R035	1-249-433-11	CARBON	22K 5% 1/4W	R502	1-249-409-11	CARBON	220 5% 1/4W
R036	1-249-432-11	CARBON	18K 5% 1/4W	R503	1-249-410-11	CARBON	270 5% 1/4W
R037	1-249-425-11	CARBON	4.7K 5% 1/4W	R504	1-215-427-00	METAL	1.8K 1% 1/6W
R038	1-249-422-11	CARBON	2.7K 5% 1/4W	R505	1-249-431-11	CARBON	15K 5% 1/4W
R039	1-249-433-11	CARBON	22K 5% 1/4W	R506	1-249-428-11	CARBON	8.2K 5% 1/4W
R040	1-249-431-11	CARBON	15K 5% 1/4W	R509	1-249-424-11	CARBON	3.9K 5% 1/4W
R041	1-249-429-11	CARBON	10K 5% 1/4W	R510	1-249-426-11	CARBON	5.6K 5% 1/4W
R042	1-249-417-11	CARBON	1K 5% 1/4W	R514	1-249-409-11	CARBON	220 5% 1/4W
R043	1-249-413-11	CARBON	470 5% 1/4W	R515	1-249-423-11	CARBON	3.3K 5% 1/4W
R044	1-249-441-11	CARBON	100K 5% 1/4W	R517	1-249-429-11	CARBON	10K 5% 1/4W
R045	1-249-423-11	CARBON	3.3K 5% 1/4W	R518	1-249-437-11	CARBON	47K 5% 1/4W
R046	1-249-435-11	CARBON	33K 5% 1/4W	R519	1-249-433-11	CARBON	22K 5% 1/4W
R047	1-249-429-11	CARBON	10K 5% 1/4W	R520	1-249-411-11	CARBON	330 5% 1/4W
R048	1-249-429-11	CARBON	10K 5% 1/4W	R521	1-249-405-11	CARBON	100 5% 1/4W
R049	1-249-429-11	CARBON	10K 5% 1/4W	R522	1-215-469-00	METAL	100K 1% 1/6W
R050	1-249-426-11	CARBON	5.6K 5% 1/4W	R523	1-249-417-11	CARBON	1K 5% 1/4W
R051	1-249-413-11	CARBON	470 5% 1/4W	R524	1-249-421-11	CARBON	2.2K 5% 1/4W
R052	1-249-417-11	CARBON	1K 5% 1/4W	R525	1-249-417-11	CARBON	1K 5% 1/4W
R053	1-249-417-11	CARBON	1K 5% 1/4W	R526	1-249-409-11	CARBON	220 5% 1/4W F
R054	1-249-417-11	CARBON	1K 5% 1/4W	R527	1-249-431-11	CARBON	15K 5% 1/4W
R055	1-249-411-11	CARBON	330 5% 1/4W	R528	1-249-408-11	CARBON	180 5% 1/4W
R056	1-249-405-11	CARBON	100 5% 1/4W	R529	1-249-427-11	CARBON	6.8K 5% 1/4W
R057	1-249-409-11	CARBON	220 5% 1/4W	R530	1-249-448-11	CARBON	1.2 5% 1/4W F
R058	1-249-424-11	CARBON	3.9K 5% 1/4W	R531	1-247-881-00	CARBON	120K 5% 1/4W
R059	1-249-417-11	CARBON	1K 5% 1/4W	R532	1-249-417-11	CARBON	1K 5% 1/4W
R060	1-249-417-11	CARBON	1K 5% 1/4W	R534	1-247-901-11	CARBON	820K 5% 1/4W
R061	1-249-417-11	CARBON	1K 5% 1/4W	R535	1-249-749-00	CARBON	2.2M 5% 1/4W
R062	1-249-417-11	CARBON	1K 5% 1/4W	R536	1-249-749-00	CARBON	2.2M 5% 1/4W
R063	1-249-417-11	CARBON	1K 5% 1/4W	R537	1-249-434-11	CARBON	27K 5% 1/4W
R064	1-249-417-11	CARBON	1K 5% 1/4W	R538	1-247-883-00	CARBON	150K 5% 1/4W
R065	1-249-417-11	CARBON	1K 5% 1/4W	R539	1-247-883-00	CARBON	150K 5% 1/4W
R066	1-249-417-11	CARBON	1K 5% 1/4W	R540	1-249-399-11	CARBON	33 5% 1/4W
R067	1-249-417-11	CARBON	1K 5% 1/4W	R541	1-249-438-11	CARBON	56K 5% 1/4W
R068	1-249-417-11	CARBON	1K 5% 1/4W	R542	1-249-389-11	CARBON	4.7 5% 1/4W
R069	1-249-417-11	CARBON	1K 5% 1/4W	R543	1-249-451-11	CARBON	2.2 5% 1/4W
R070	1-249-417-11	CARBON	1K 5% 1/4W	R544	1-247-745-11	CARBON	330- 5% 1/2W
R071	1-249-417-11	CARBON	1K 5% 1/4W	R545	1-249-433-11	CARBON	22K 5% 1/4W
R072	1-249-417-11	CARBON	1K 5% 1/4W	R546	1-249-434-11	CARBON	27K 5% 1/4W
R073	1-249-417-11	CARBON	1K 5% 1/4W	R547	1-249-423-11	CARBON	3.3K 5% 1/4W
R074	1-249-425-11	CARBON	4.7K 5% 1/4W	R548	1-216-349-00	METAL OXIDE	1 5% 1W F
R075	1-249-409-11	CARBON	220 5% 1/4W	R549	1-216-454-11	METAL OXIDE	390 5% 2W F
R251	1-249-425-11	CARBON	4.7K 5% 1/4W	R550	1-249-440-11	CARBON	82K 5% 1/4W
R252	1-249-412-11	CARBON	390 5% 1/4W	R551	1-249-749-00	CARBON	2.2M 5% 1/4W
R253	1-249-429-11	CARBON	10K 5% 1/4W	R553	1-216-869-11	METAL OXIDE	1K 5% 1W
R254	1-216-357-00	METAL OXIDE	4.7 5% 1W F	R554	1-249-411-11	CARBON	330 5% 1/4W
R255	1-249-429-11	CARBON	10K 5% 1/4W	R555	1-249-749-00	CARBON	2.2M 5% 1/4W
R256	1-247-897-11	CARBON	560K 5% 1/4W	R556	1-249-405-11	CARBON	100 5% 1/4W
R257	1-249-431-11	CARBON	15K 5% 1/4W	R557	1-249-425-11	CARBON	4.7K 5% 1/4W
R258	1-215-869-11	METAL OXIDE	1K 5% 1W F	R558	1-247-895-00	CARBON	470K 5% 1/4W
R259	1-249-425-11	CARBON	4.7K 5% 1/4W	R559	1-249-427-11	CARBON	6.8K 5% 1/4W
R261	1-249-425-11	CARBON	4.7K 5% 1/4W	R560	1-249-411-11	CARBON	330 5% 1/4W
R262	1-249-412-11	CARBON	390 5% 1/4W	R591	1-249-416-11	CARBON	820 5% 1/4W
R263	1-249-429-11	CARBON	10K 5% 1/4W				

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**D** **H1** **H2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R592	1-249-417-11	CARBON	1K 5% 1/4W	R5505	1-249-393-11	CARBON	10 5% 1/4W
R593	1-249-419-11	CARBON	1.5K 5% 1/4W				
R594	1-249-428-11	CARBON	8.2K 5% 1/4W				
R597	1-249-413-11	CARBON	470 5% 1/4W				
R598	1-215-900-11	METAL OXIDE	22K 5% 2W F				
R599	1-247-887-00	CARBON	220K 5% 1/4W	RV501	1-238-013-11	RES, ADJ., CARBON 2.2K	
R600	1-249-381-11	CARBON	1 5% 1/4W	RV502	1-238-016-11	RES, ADJ., CARBON 10K	
R603	1-216-400-11	METAL OXIDE	8.2 5% 3W F	RV601	1-238-011-11	RES, ADJ., CARBON 470	
R604	1-249-405-11	CARBON	100 5% 1/4W				
R605	1-249-433-11	CARBON	22K 5% 1/4W				
R606	1-249-418-11	CARBON	1.2K 5% 1/4W	SG801	1-519-422-11	GAP, SPARK	
R607	1-249-425-11	CARBON	4.7K 5% 1/4W				
R608	1-216-488-11	METAL OXIDE	18K 5% 3W F				
R609	1-249-396-11	CARBON	18 5% 1/4W				
R610	1-244-941-00	CARBON	680K 5% 1/2W				
R611	1-249-400-11	CARBON	39 5% 1/4W	T601 A-1-449-822-11	TRANSFORMER		
R612	1-249-417-11	CARBON	1K 5% 1/4W	T602 A-1-424-277-11	TRANSFORMER, TRIGGER PULSE		
R613	1-249-441-11	CARBON	100K 5% 1/4W	T801 A-1-437-090-21	HDT		
R614	1-205-758-11	WIREWOUND	100 10% 10W F	T802 A-1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)		
R616	1-247-881-00	CARBON	120K 5% 1/4W				
R617	1-249-411-11	CARBON	330 5% 1/4W	*1-631-220-11	H1 BOARD		
R618	1-216-431-11	METAL OXIDE	560 5% 1W F				
R619	1-249-429-11	CARBON	10K 5% 1/4W				
R620	1-249-433-11	CARBON	22K 5% 1/4W				
R621	1-249-431-11	CARBON	15K 5% 1/4W				
R622	1-249-429-11	CARBON	10K 5% 1/4W				
R623	1-249-433-11	CARBON	22K 5% 1/4W				
R624	1-249-426-11	CARBON	5.6K 5% 1/4W				
R625	1-215-865-11	METAL OXIDE	220 5% 1W F				
R626	1-249-411-11	CARBON	330 5% 1/4W				
R628	1-249-393-11	CARBON	10 5% 1/4W				
R629	1-249-411-11	CARBON	330 5% 1/4W				
R633	1-249-417-11	CARBON	1K 5% 1/4W	R1651	1-249-413-11	CARBON	470 5% 1/4W
R634	1-216-430-11	METAL OXIDE	390 5% 1W F	R1652	1-249-413-11	CARBON	470 5% 1/4W
R635	1-249-429-11	CARBON	10K 5% 1/4W				
R636	1-249-429-11	CARBON	10K 5% 1/4W				
R643	1-217-189-21	WIREWOUND	0.12 5% 2W F				
R647	1-216-485-11	METAL OXIDE	5.6K 5% 3W F	S1651	1-571-532-21	SWITCH, TACTIL	
R648	1-216-485-11	METAL OXIDE	5.6K 5% 3W F	S1652	1-571-532-21	SWITCH, TACTIL	
R651	1-249-405-11	CARBON	100 5% 1/4W	S1653	1-571-532-21	SWITCH, TACTIL	
R653	1-205-758-11	WIREWOUND	100 10% 10W F				
R802	1-249-443-11	CARBON	0.47 5% 1/4W F				
R805	1-249-448-11	CARBON	1.2 5% 1/4W F	*1-631-221-11	H2 BOARD		
R806	1-249-439-11	CARBON	68K 5% 1/4W F				
R807	1-216-869-11	METAL OXIDE	1K 5% 1W				
R809	1-202-821-11	SOLID	1.8K 10% 1/2W				
R810	1-202-818-00	SOLID	1K 10% 1/2W				
R811	1-215-882-00	METAL OXIDE	22 5% 2W F				
R812	1-249-494-11	CARBON	68K 5% 1/2W				
R815	1-215-884-11	METAL OXIDE	47 5% 2W F				
R816	1-215-868-00	METAL OXIDE	680 5% 1W F				
R817	1-249-417-11	CARBON	1K 5% 1/4W	D1651	8-719-311-89	DIODE SEL1222R-C	
R820	1-249-403-11	CARBON	68 5% 1/4W				
R821	1-247-725-11	CARBON	10K 5% 1/4W F				
R822 A-1-217-778-61	FUSIBLE	1K 5% 1W F					
R825	1-216-345-11	METAL OXIDE	0.47 5% 1W F				
R826	1-249-441-11	CARBON	100K 5% 1/4W				
R827	1-249-429-11	CARBON	10K 5% 1/4W	D1654	8-719-948-31	DIODE LD-201VR	
R828	1-249-423-11	CARBON	3.3K 5% 1/4W				
R829	1-249-416-11	CARBON	820 5% 1/4W				
R831	1-249-451-11	CARBON	2.2 5% 1/4W				
R5501	1-249-429-11	CARBON	10K 5% 1/4W				
R5503	1-249-389-11	CARBON	4.7 5% 1/4W	IC1651	8-741-138-70	IC BX-1387	
R5504	1-247-903-00	CARBON	1M 5% 1/4W				

H2	Y	J2	J1
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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK							
<RESISTOR>														
R1661	1-249-413-11	CARBON	470 5% 1/4W	R1714	1-249-417-11	CARBON	1K 5% 1/4W							
R1662	1-249-413-11	CARBON	470 5% 1/4W	R1717	1-249-417-11	CARBON	1K 5% 1/4W							
*****														
*1-631-217-11	Y BOARD	*****		R1718	1-249-417-11	CARBON	1K 5% 1/4W							
*1-568-881-61	PIN, CONNECTOR 6P			R1723	1-249-415-11	CARBON	680 5% 1/4W							
*1-568-882-71	PIN, CONNECTOR 7P			*****										
<CAPACITOR>														
C1701	1-126-233-11	ELECT	22MF	20%	50V	<CAPACITOR>								
C1702	1-101-004-00	CERAMIC	0.01MF		50V	C1751	1-101-005-00	CERAMIC	0.022MF	50V				
C1703	1-126-233-11	ELECT	22MF	20%	50V	C1752	1-101-005-00	CERAMIC	0.022MF	50V				
C1704	1-101-004-00	CERAMIC	0.01MF		50V	C1755	1-102-114-00	CERAMIC	470PF	10% 50V				
C1705	1-126-233-11	ELECT	22MF	20%	50V	C1756	1-102-114-00	CERAMIC	470PF	10% 50V				
C1706	1-126-233-11	ELECT	22MF	20%	50V	<COIL>								
C1707	1-126-233-11	ELECT	22MF	20%	50V	L1751	1-412-240-11	INDUCTOR, WIDE BAND						
C1710	1-102-059-00	CERAMIC	22PF	5%	50V	L1752	1-412-240-11	INDUCTOR, WIDE BAND						
C1711	1-101-888-00	CERAMIC	68PF	5%	50V	*****								
<DIODE>														
D1701	8-719-911-19	DIODE	ISS119	*A-1651-003-A J1 BOARD, COMPLETE										
<NR PACK>														
DNR170	1-466-181-11	NR PACK	(NRP-2E)	*****										
<IC>														
IC1701	8-759-982-10	IC	RC7809FA	1-561-534-41 SOCKET 21P										
IC1702	8-759-604-29	IC	M5F7805	*1-564-518-11 PLUG, CONNECTOR 3P										
<COIL>														
L1701	1-410-671-31	INDUCTOR	47UH	*1-564-524-11 PLUG, CONNECTOR 9P										
L1702	1-408-405-00	INDUCTOR	4.7UH	*1-564-527-11 PLUG, CONNECTOR 12P										
L1703	1-410-671-31	INDUCTOR	47UH	*1-566-641-11 CONNECTOR, HINGE (TAB) 18P										
<TRANSISTOR>														
Q1701	8-729-900-89	TRANSISTOR	DTC144ES	<CAPACITOR>										
Q1702	8-729-900-89	TRANSISTOR	DTC144ES	C203	1-124-925-11	ELECT	2.2MF	20%	50V					
Q1703	8-729-900-80	TRANSISTOR	DTC114ES	C205	1-124-927-11	ELECT	4.7MF	20%	50V					
Q1704	8-729-119-78	TRANSISTOR	2SC2785-HFE	C206	1-124-925-11	ELECT	2.2MF	20%	50V					
Q1705	8-729-173-38	TRANSISTOR	2SA733-K	C207	1-124-927-11	ELECT	4.7MF	20%	50V					
<RESISTOR>														
R1701	1-215-860-11	METAL OXIDE	33	5%	1W	C213	1-126-233-11	ELECT	22MF	20%	50V			
R1702	1-249-425-11	CARBON	4.7K	5%	1/4W	C214	1-106-363-00	MYLAR	0.0068MF	10%	400V			
R1703	1-249-434-11	CARBON	27K	5%	1/4W	C217	1-106-363-00	MYLAR	0.0068MF	10%	400V			
R1704	1-249-425-11	CARBON	4.7K	5%	1/4W	C218	1-106-375-12	MYLAR	0.022MF	10%	250V			
R1705	1-249-426-11	CARBON	5.6K	5%	1/4W	C219	1-106-375-12	MYLAR	0.022MF	10%	250V			
R1706	1-249-427-11	CARBON	6.8K	5%	1/4W	C220	1-106-620-11	MYLAR	0.0033MF	10%	100V			
R1707	1-249-429-11	CARBON	10K	5%	1/4W	C221	1-108-620-11	MYLAR	0.0033MF	10%	100V			
R1708	1-249-429-11	CARBON	10K	5%	1/4W	C222	1-106-385-00	MYLAR	0.056MF	10%	100V			
R1710	1-249-433-11	CARBON	22K	5%	1/4W	C223	1-106-385-00	MYLAR	0.056MF	10%	100V			
R1711	1-249-438-11	CARBON	56K	5%	1/4W	C224	1-106-367-00	MYLAR	0.01MF	10%	400V			
R1712	1-249-413-11	CARBON	470	5%	1/4W	C225	1-136-173-00	FILM	0.47MF	5%	50V			
R1713	1-249-414-11	CARBON	560	5%	1/4W	C226	1-136-173-00	FILM	0.47MF	5%	50V			
<TRANSISTOR>														
C227	1-106-375-12	MYLAR	0.022MF	10%	250V									
C228	1-106-379-12	MYLAR	0.033MF	10%	250V									
C229	1-106-371-00	MYLAR	0.015MF	10%	400V									
C230	1-106-371-00	MYLAR	0.015MF	10%	400V									
C231	1-124-902-00	ELECT	0.47MF	20%	50V									
C232	1-123-875-11	ELECT	10MF	20%	50V									
C233	1-163-005-11	CERAMIC CHIP	470PF	10%	50V									
C234	1-163-005-11	CERAMIC CHIP	470PF	10%	50V									
C235	1-163-005-11	CERAMIC CHIP	470PF	10%	50V									
C236	1-163-005-11	CERAMIC CHIP	470PF	10%	50V									
C237	1-124-902-00	ELECT	0.47MF	20%	50V									
C238	1-163-125-00	CERAMIC CHIP	220PF	5%	50V									

**J1**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C239	1-126-103-11	ELECT	470MF	20%	16V	D206	8-719-110-04	DIODE RD7.5ES-B3
C1401	1-123-875-11	ELECT	10MF	20%	50V	D1401	8-719-110-04	DIODE RD7.5ES-B3
C1402	1-126-103-11	ELECT	470MF	20%	16V	D1403	8-719-110-04	DIODE RD7.5ES-B3
C1403	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	D1404	8-719-110-04	DIODE RD7.5ES-B3
C1404	1-124-902-00	ELECT	0.47MF	20%	50V	D1405	8-719-110-04	DIODE RD7.5ES-B3
C1405	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	D1406	8-719-110-04	DIODE RD7.5ES-B3
C1406	1-124-902-00	ELECT	0.47MF	20%	50V	D1407	8-719-110-18	DIODE RD10ES-B3
C1407	1-124-910-11	ELECT	47MF	20%	50V	D1408	8-719-110-14	DIODE RD9.1ES-B3
C1408	1-124-122-11	ELECT	100MF	20%	50V	D1409	8-719-110-14	DIODE RD9.1ES-B3
C1409	1-126-233-11	ELECT	22MF	20%	50V	D1410	8-719-110-14	DIODE RD9.1ES-B3
C1410	1-123-875-11	ELECT	10MF	20%	50V	D1415	8-719-110-04	DIODE RD7.5ES-B3
C1411	1-123-875-11	ELECT	10MF	20%	50V	D1418	8-719-110-04	DIODE RD7.5ES-B3
C1412	1-124-910-11	ELECT	47MF	20%	50V	D1419	8-719-110-04	DIODE RD7.5ES-B3
C1413	1-124-910-11	ELECT	47MF	20%	50V	D1420	8-719-110-04	DIODE RD7.5ES-B3
C1414	1-123-875-11	ELECT	10MF	20%	50V	D1421	8-719-110-04	DIODE RD7.5ES-B3
C1415	1-124-902-00	ELECT	0.47MF	20%	50V	D1422	8-719-110-04	DIODE RD7.5ES-B3
C1416	1-124-902-00	ELECT	0.47MF	20%	50V	D1423	8-719-110-04	DIODE RD7.5ES-B3
C1417	1-124-120-11	ELECT	220MF	20%	16V	D1424	8-719-110-04	DIODE RD7.5ES-B3
C1418	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	D1425	8-719-110-04	DIODE RD7.5ES-B3
C1419	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	D1426	8-719-110-04	DIODE RD7.5ES-B3
C1425	1-124-902-00	ELECT	0.47MF	20%	50V	D1501	8-719-300-33	DIODE RU-3AM
C1426	1-124-902-00	ELECT	0.47MF	20%	50V	D1502	8-719-911-19	DIODE ISS119
C1427	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	D1503	8-719-911-19	DIODE ISS119
C1428	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	D1504	8-719-911-19	DIODE ISS119
C1429	1-136-017-00	CERAMIC CHIP	0.0047MF		50V	D1505	8-719-911-19	DIODE ISS119
C1430	1-163-003-11	CERAMIC CHIP	330PF	10%	50V	D1506	8-719-110-85	DIODE RD30ES-B4
C1431	1-126-529-11	ELECT	0.47MF	20%	50V	D1507	8-719-911-19	DIODE ISS119
C1432	1-124-902-00	ELECT	0.47MF	20%	50V	D1510	8-719-911-19	DIODE ISS119
C1433	1-124-122-11	ELECT	100MF	20%	50V			<IC>
C1436	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	IC201	8-759-013-17	IC TDA6200
C1437	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	IC1401	8-752-032-27	IC CXA1114P
C1438	1-106-367-00	MYLAR	0.01MF	10%	400V	IC1402	8-759-946-32	IC TEA2014A
C1439	1-106-367-00	MYLAR	0.01MF	10%	400V	IC1403	8-759-240-53	IC TC4053BP
C1440	1-123-875-11	ELECT	10MF	20%	50V	IC1501	8-759-942-16	IC TEA2031A
C1441	1-123-875-11	ELECT	10MF	20%	50V			<TRANSISTOR>
C1442	1-124-910-11	ELECT	47MF	20%	50V	Q201	8-729-271-22	TRANSISTOR 2SC2712-G
C1443	1-124-910-11	ELECT	47MF	20%	50V	Q202	8-729-271-22	TRANSISTOR 2SC2712-G
C1444	1-124-910-11	ELECT	47MF	20%	50V	Q1401	8-729-216-22	TRANSISTOR 2SA1162
C1445	1-102-824-00	CERAMIC	470PF	5%	50V	Q1402	8-729-271-22	TRANSISTOR 2SC2712-G
C1446	1-102-824-00	CERAMIC	470PF	5%	50V	Q1403	8-729-271-22	TRANSISTOR 2SC2712-G
C1501	1-123-875-11	ELECT	10MF	20%	50V	Q1404	8-729-216-22	TRANSISTOR 2SA1162
C1502	1-123-875-11	ELECT	10MF	20%	50V			<RESISTOR>
C1503	1-108-614-11	MYLAR	0.001MF	10%	100V	Q1403	8-729-271-22	TRANSISTOR 2SC2712-G
C1504	1-124-910-11	ELECT	47MF	20%	50V	Q1404	8-729-216-22	TRANSISTOR 2SA1162
C1505	1-106-383-00	MYLAR	0.047MF	10%	100V			<CONNECTOR>
C1507	1-108-620-11	MYLAR	0.0033MF	10%	100V			
C1508	1-123-875-11	ELECT	10MF	20%	50V	R201	1-216-091-00	METAL GLAZE 56K 5% 1/10W
C1509	1-124-791-11	ELECT	1MF	20%	50V	R202	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W
C1511	1-123-875-11	ELECT	10MF	20%	50V	R203	1-216-075-00	METAL GLAZE 12K 5% 1/10W
C1512	1-106-363-00	MYLAR	0.0068MF	10%	400V	R204	1-216-085-00	METAL GLAZE 33K 5% 1/10W
C1513	1-163-105-00	CERAMIC CHIP	33PF	5%	50V	R205	1-216-085-00	METAL GLAZE 33K 5% 1/10W
C1514	1-106-375-12	MYLAR	0.022MF	10%	250V			
C1515	1-102-117-00	CERAMIC	820PF	10%	50V	R206	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
						R207	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W
						R208	1-216-077-00	METAL GLAZE 15K 5% 1/10W
CN1401	1-565-838-11	PIN JACK BLOCK 2P				R209	1-216-081-00	METAL GLAZE 22K 5% 1/10W
						R210	1-216-077-00	METAL GLAZE 15K 5% 1/10W
						R211	1-216-097-00	METAL GLAZE 100K 5% 1/10W
						R212	1-216-081-00	METAL GLAZE 22K 5% 1/10W
D201	8-719-110-14	DIODE RD9.1ES-B3				R213	1-216-077-00	METAL GLAZE 15K 5% 1/10W
D202	8-719-110-14	DIODE RD9.1ES-B3				R214	1-216-033-00	METAL GLAZE 220 5% 1/10W
D205	8-719-110-04	DIODE RD7.5ES-B3				R215	1-216-081-00	METAL GLAZE 22K 5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R216	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1454	1-216-180-00	METAL GLAZE	180 5% 1/8W
R217	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1455	1-216-180-00	METAL GLAZE	180 5% 1/8W
R218	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1457	1-216-025-00	METAL GLAZE	100 5% 1/10W
R219	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1459	1-216-025-00	METAL GLAZE	100 5% 1/10W
R220	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R1460	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R221	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1461	1-216-190-00	METAL GLAZE	470 5% 1/8W
R222	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1462	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R223	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1463	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R224	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1464	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R225	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1465	1-216-023-00	METAL GLAZE	82 5% 1/10W
R226	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1466	1-216-033-00	METAL GLAZE	220 5% 1/10W
R227	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1467	1-216-025-00	METAL GLAZE	100 5% 1/10W
R228	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1468	1-216-025-00	METAL GLAZE	100 5% 1/10W
R229	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R1469	1-216-025-00	METAL GLAZE	100 5% 1/10W
R230	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R1470	1-216-025-00	METAL GLAZE	100 5% 1/10W
R231	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1471	1-216-023-00	METAL GLAZE	82 5% 1/10W
R232	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1472	1-216-023-00	METAL GLAZE	82 5% 1/10W
R233	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1473	1-216-023-00	METAL GLAZE	82 5% 1/10W
R234	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R1474	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R240	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1476	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R1401	1-216-023-00	METAL GLAZE	82 5% 1/10W	R1477	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R1402	1-216-170-00	METAL GLAZE	68 5% 1/8W	R1478	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1403	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R1480	1-216-190-00	METAL GLAZE	470 5% 1/8W
R1404	1-216-178-00	METAL GLAZE	150 5% 1/8W	R1482	1-216-178-00	METAL GLAZE	150 5% 1/8W
R1405	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R1483	1-216-178-00	METAL GLAZE	150 5% 1/8W
R1407	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1484	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1408	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R1485	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1409	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1486	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1410	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R1487	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1411	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1488	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1412	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R1489	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R1413	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1501	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1414	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R1502	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R1415	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1503	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1416	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1504	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R1417	1-216-023-00	METAL GLAZE	82 5% 1/10W	R1505	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1418	1-247-738-11	CARBON	82 5% 1/2W F	R1506	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1422	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1509	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R1423	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1510	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R1424	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R1511	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1425	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1512	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R1426	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1513	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1427	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1514	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1428	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1515	1-216-117-00	METAL GLAZE	680K 5% 1/10W
R1429	1-216-113-00	METAL GLAZE	470K 5% 1/10W	R1516	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R1430	1-216-170-00	METAL GLAZE	68 5% 1/8W	R1517	1-216-033-00	METAL GLAZE	220 5% 1/10W
R1431	1-249-413-11	CARBON	470 5% 1/4W	R1519	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R1432	1-249-413-11	CARBON	470 5% 1/4W	R1520	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R1433	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1521	1-216-214-00	METAL GLAZE	4.7K 5% 1/8W
R1434	1-249-393-11	CARBON	10 5% 1/4W F	R1556	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R1437	1-216-073-00	METAL GLAZE	10K 5% 1/10W	<VARIABLE RESISTOR>			
R1440	1-216-045-00	METAL GLAZE	680 5% 1/10W	RV1501	1-238-023-11	RES, ADJ, CARBON	470K
R1441	1-216-045-00	METAL GLAZE	680 5% 1/10W	RV1502	1-228-994-00	RES, ADJ, CARBON	10K
R1442	1-216-089-00	METAL GLAZE	47K 5% 1/10W	RV1503	1-238-017-11	RES, ADJ, CARBON	22K
R1443	1-216-089-00	METAL GLAZE	47K 5% 1/10W	RV1504	1-238-012-11	RES, ADJ, CARBON	1K
R1444	1-216-033-00	METAL GLAZE	220 5% 1/10W	RV1505	1-238-023-11	RES, ADJ, CARBON	470K
R1445	1-216-095-00	METAL GLAZE	82K 5% 1/10W	RV1506	1-238-017-11	RES, ADJ, CARBON	22K
R1446	1-216-033-00	METAL GLAZE	220 5% 1/10W	RV1507	1-238-009-11	RES, ADJ, CARBON	220
R1447	1-216-033-00	METAL GLAZE	220 5% 1/10W	RV1508	1-238-016-11	RES, ADJ, CARBON	10K
R1448	1-216-025-00	METAL GLAZE	100 5% 1/10W	RV1509	1-238-023-11	RES, ADJ, CARBON	470K
R1452	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****			
R1453	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****			

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

REF. NO. PART NO.	DESCRIPTION	REMARK
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MISCELLANEOUS  
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- ▲ 1-426-372-11 COIL, DEMAGNETIZATION
- ▲ 1-451-311-31 DEFLECTION YOKE (Y25FXA)
- 1-452-032-00 MAGNET, DISK; 10MM  $\phi$
- 1-452-094-00 MAGNET, ROTATABLE DISK; 15MM  $\phi$
- ▲ 1-575-487-11 CORD, POWER (WITH NOISE FILTER)

V901 ▲ 8-733-224-05 PICTURE TUBE (A59JWC60X)

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ACCESSORIES AND PACKING MATERIALS  
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PART NO.	DESCRIPTION	REMARK
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- 1-465-363-11 COMMANDER ASSY (RM-689)
- \*A-1678-001-A BOX ASSY, WOOFER
- \*A-1678-010-A BOX ASSY (RIGHT), SPEAKER
- \*A-1678-012-A BOX ASSY (LEFT), SPEAKER
- \*3-704-280-01 BAG, PROTECTION (STANDARD)
- 3-759-001-12 MANUAL, INSTRUCTION
- \*4-201-012-01 CUSHION (UPPER) (ASSY)
- \*4-201-013-01 CUSHION (LOWER) (ASSY)
- \*4-201-015-01 INDIVIDUAL CARTON
- \*4-380-340-01 BAG, PROTECTION